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SPECIAL ARTICLE.

A TRIBUTE TO DR. T. GAILLARD THOMAS.

ON Thursday, November 21st, about 300 of New York's representative physicians did honor to Dr. T. Gaillard Thomas by celebrating his seventieth birthday at a dinner at Sherry's. Dr. Jas. McLane officiated as toastmaster in a very spirited and engaging manner and Dr. Thomas, Rev. Dr. Greer, Dr. Weir Mitchell of Philadelphia, Hon. Judge Howland, Dr. W. H. Welch of Baltimore and Dr. Geo. B. Shattuck of Boston responded to the toasts, each in inimitable manner, making the occasion a most enjoyable and inspiring one.

Dr. McLane, in presenting his congratulations to Dr. Thomas, and in response to the sentiment "I speak not this in estimation of what I think might be, but what I know," said: "This is no ordinary occasion. The gathering is not to commemorate any great political moment, nor yet to consider any national event. The physician deals with the events of private life and this gathering is a tribute to the resources of friendship. It is a matter of mutual felicitation that so representative a gathering have assembled. All kinds have come together; general practitioners, surgeons, specialists, teachers, from this city, from other cities and from other learned professions. It is an expression of affection and esteem for one long regarded as a friend, and as an honor to the medical profession for so many years."

Dr. McLane said that it would be impossible for him to respond to the letter of his toast for "all that he knew" was so much that time would not suffice for its recital. He was one of Dr. Thomas' oldest pupils and attended his first lectures in the College of Physicians and Surgeons. For over thirty-five years he had been associated with him in the school as student, in the faculty and in private work. He could speak of him as a teacher, as one with a most fluent gift of speech, and a most magnetic lecturer, and as a man whose evident sincerity, thorough manliness and marked personality made him beloved and added great fame to the institution in which he labored. Added to this were his remarkable hopefulness and cheerfulness. It was one of his highest characteristics that he should look on the bright side of all events and in his professional relations with his patients this attitude of the true physician was ever uppermost. Dr. Thomas had learned that precious art of knowing how to live and his high sense of honor and integrity had won for him the highest esteem. "Our hearts warm in the glow of an abiding faith." Dr. Thomas had reached the years of three score and ten and was, in the language of Oliver Wendell Holmes, a representative of that truth that "to be seventy years young was more hopeful and happy than to be forty years old."

"Our friend now wears white roses on his brow in the place of the red. May the vintage of his life grow sweeter and kindlier with every sun that sets and may his life continue to brighten those that come after."

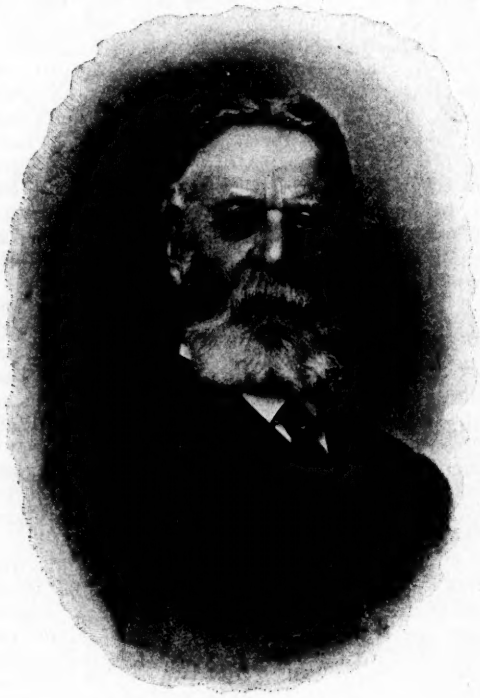
Dr. Thomas, in response to the sentiment "Wisely silent to your own worth, and therefore t'were a sin for others to be so," said that he was made very happy by this large and enthusiastic gathering and by the many friendly glances. Even this, however, was not the full measure of the pleasure; it was, he said, the feeling that deep down in the heart of the profession there was the endorsement of the fellows of his kin. "You, my brother practitioners," he said, "have to-night sealed my career with the sign of approval. This is the highest joy." During one-half a century this approval had been the light of his course and the prize to be attained; without it, his life would have been as the Dead Sea fruit.

"This year," he continued, "is the proudest year of my life. About me I see the faces which were familiar in college halls and in hospital wards which have drawn from me the very best within me. * * * Down through the vista of fifty years I seem to see myself as a young man, entering this great city of Manhattan without a single acquaintance, and as I look forward from that moment the memory of many of New York's proudest ornaments in the medical profession comes into the eye of retrospect."

Dr. Thomas then spoke of Valentine Mott, who was then the sinecure of all eyes, the man at the top of the ladder. He spoke of Drs. J. W. Francis and the elder Delafield and Martyn Paine and then Willard Parker and later his contemporaries, Alonzo Clarke, W. Van Buren, T. M. Markoe, Baker, Austin Flint and J. T. Metcalfe; all had passed away save the last. He recalled those early years when there were gathered about ten young men, G. T. Elliot, Donahue, Otis, Green, Bunsen, Sands, Draper, Loomis, Budd and himself; all had run a glorious course and he alone remained. His half-century in the profession had seen great changes in medicine. In all the 2,300 years, from the days of the teachings of Hippocrates in the island of Cos, to the present, more progress had been made in this last fifty years than in all the 2,250 which had preceded it. He alluded to the great ideas that had come to prevail in modern medicine and which had done so much to revolutionize it as a science and so much to perfect it as an art. Virchow, he said, had just laid down the foundations in cellular pathology, on which the vast structure of modern medicine had been built. Anesthetics had banished pain; the X-ray had given eyes to the blind

and had illuminated the dark places as daylight; the invisible bacterial host had been routed and the death-rate from childbirth had been reduced almost to a minimum and was soon to be stamped out. All future plagues were no longer to be dreaded in the light of modern sanitary science. Gynecology had been revolutionized by Marion Syms, the science of medical thermometry had greatly elevated the art of diagnosis and the genius of a McBurney had robbed appendicitis of its dangers. Napoleon's one hundred days of terror had given place to fifty years of hope and freedom.

"The older I grow in medicine," said Dr. Thomas, "the stronger grows the conviction that



T. Gaillard Thomas, M.D., LL.D.

the medical profession exemplifies that 'great heart of the Saviour of the world.' The physician is the great benefactor of modern times and I hope soon to see the day when his position is more fully appreciated and that soon there may be represented in the Cabinet of the President of the United States a Secretary of Public Health.

"The memory of this night," he said in closing, "will lighten the future, and from the depths of my heart I thank you."

The Rev. Dr. Greer responded to the toast "Let me be privileged by my place and message to be a speaker free," and he was. In a very pleasing and playful manner he referred to his first meeting with Dr. Thomas, some thirteen years before. The doctor was then a leader of a private drill in the riding academy and he admired him because he rode so well and he then believed that he must be a good physician because one that rides a horse well can do nothing ill. This, he said, was the secret of his success. Dr. Thomas was a born rider, but he also had other accomplishments; he was a born orator and he knew of many a vacant diocese which he might fill most acceptably. He thought, however, that he would first ask him to preach to his benighted medical brethren, since they were so much in need of spiritual illumination. "To meet and find a *man*, was it not the greatest of all human charms? for back of all professions and all successes, whatever the field, his was the charm of a *man*."

Dr. Weir Mitchell, in response to the toast "I'm told you write in public prints; if true, it's natural you should know a thing or two," repudiated, in playful manner, the sentiment, saying that it was not true that he wrote for the public prints and it was therefore not surprising if he knew very little. It was not the glory, he said, of having reached seventy years that was Dr. Thomas' this night; he himself had done that, and did not count it great, but it was the noble use that Dr. Thomas had made of that seventy years that endeared him to the hearts of his brethren.

In other lands, he said, great honors and distinctions were heaped upon men for various reasons; it our own country it was the destroyer of life, the man of the Army or the Navy, the wrecker of property and the former of gigantic industrial combinations, and the lawyer, who were chosen for places of honor and distinction. He did not quarrel, he said, that such were given, but for the medical man honors and distinctions there were none. He thought that this ought to be remedied and he hoped that this wrong would be righted. "We all to-night, however, grant greater honor and distinction to our guest for his faithfulness to all we hold just, wise and honorable in this profession." His was a life such as Sir Philip Sydney described: "A friend, intelligent and noble." Dr. Mitchell then spoke of the work of our profession; much of it was drudgery, unpaid and unremunerated labor; years of work in the hospital wards and rarely ever was it recognized by outward show of honor. The good Samaritan was certainly a doctor. He was the first of a long line which had continued to the present time to exercise the privilege of leading a useful life.

In more jocose vein Dr. Mitchell suggested that a Doctor's Trust would do much to wake the public from their lethargy. Just imagine, he said, the result of a doctors' strike. "I am very sorry, my dear madam, I cannot see you to-day, we are on a strike." He further spoke of the value of the body of specialists as moving features in the disposition of much wealth. Thousands of patients go to a given city for consulting purposes. The value in cash is enormous to the shopkeepers and hotels by reason of this very feature.

Of our guest, in conclusion, he said that he represented all that was dearest and best in our

profession and wished for him many more years of usefulness.

Judge Howland in response to the toast "I am one of those genial souls that will use the devil himself with courtesy," said that he unfortunately had been brought up in that puritanical school that considered all pleasures wicked and indigestible, but with the sight of so many physicians at dinner he felt somewhat reassured. He was more and more impressed, he said, with the charm of physicians individually, but collectively they were truly formidable, recalling to his mind the story of the Irish bride, who riding away on her wedding night, looks up into the beaming face of her husband, saying, "Don't you feel ashamed of yureself, for bein' so hansom?"

He wished, he said, to add his note of congratulation from the legal profession. He felt proud and distinguished to call Dr. Thomas his friend; it was in the eternal fitness of things that Dr. Thomas should have a birthday of his own, after assisting at so many others.

The physicians, he said, were the only profession that had maintained their place in the march of progress of the world. The law has crystallized into a series of eternal truths and was more concerned with forms than with new and vital facts; the clergy already had found, they thought, eternal truth and were chiefly concerned in modifying their sentences of description, making it more poetically attractive, but the physician had no such limitations; the half-truths of yesterday were cast aside for the fuller truths of to-day. Progress was their keynote and their work always remained undone. Dr. Thomas was one whose work, even now, was never done; he had written his name high in the annals of the profession as second to none.

Dr. Wm. H. Welch spoke to the response "And, indeed, I believe no man ever taught better; each sentence hangs perfectly poised to a letter," and gave a short résumé of Dr. Thomas' career which as a teacher has given him a world-wide fame. It was in 1856 that he began studying in New York and was resident physician in Bellevue. He soon formed a quiz class in New York, the second of its kind, which had a marked success and which first brought out Dr. Thomas' unusual capacity as a teacher. In the United States, he said, it was a difficult thing to develop a gift of this kind or to acquire a reputation therefrom; the *privat docent* system of the German universities was much better in this regard, but the quiz system made a substitute. It has its abuses but also its useful purposes; with Dr. Thomas it soon brought him to the front and he became an adjunct lecturer in the university and later physician to Bellevue Hospital, where he was one of the first to bring about real advances in the science of exact diagnosis. Direct observation was the keynote of his method.

He was soon associated with Dr. J. T. Metcalfe as professor of obstetrics in the College of Physicians and Surgeons, and became, later, professor of gynecology in the same college. He rapidly acquired a great reputation and wide fame which is the proud possession, not of the alma mater of the College of Physicians and Surgeons alone, but of the medical profession of America. His style of lecturing was marked by gracefulness and marked felicity of expression, combined with a warm enthusiasm for practical bedside work. His was the spirit of personal inquiry and of personal investigation, sound gospel and still needed. He spoke not only by his lectures, but also by his work on gynecology, which has been published in six editions and 60,000 copies sold. He molded the ideas of a generation in gynecology more than any other teacher of this country. "There are many to call him master. He has numberless friends and admirers, and his colleagues appreciate the lovable character of the man, who has the best and the highest ideals."

Dr. Geo. B. Shattuck of Boston responded to the sentiment "No men can be more amiable than men of sense, who are doctors." He recalled the time when Dr. Holmes was to relinquish the chair of anatomy at Harvard University and referred to the address that Dr. Thomas gave on that occasion, when he said that "Dr. Holmes had taught them it is an important lesson that the man who became distinguished as a physician need not rest there—need not remain a man of one view or of one idea. Dr. Holmes had bridged over that chasm which from time immemorial has existed between the medical profession and the world, had done much to bring the profession of medicine into a pleasant, agreeable combat with society at large." The pupil had learned the lesson from his master, for Dr. Thomas had certainly done much to bring the public into closer harmony with medical thought. He spoke of his association with Dr. Metcalfe, saying that they both came from southern climes, being born near enough to the sun to ripen well, and they were both brought out by the atmosphere of New York.

Dr. Shattuck then spoke of other medical men who had not been men of one idea. The elevated railroad in New York City had been inspired by a medical man. The rapid-fire gun was an invention of a medical man and the saving of the great Northwest to the United States was the outcome of the efforts of a member of the medical profession.

Speaking more particularly on his toast "Why are medical men amiable? Why are they sought for?" he said it was because they were companionable men. They studied mankind at first hand and grappled with the material sides of existence, seeing much that is noble and much that is the reverse. All good and strongly-balanced minds were drawn to the study of practical problems and the medical man believes that laws regulate mankind. Many of these he knows, others he guesses at, and of still others he is ignorant—he rejoices, but is not exultant nor boastful, nor does he shrink—his watchword, 'Though I perish, seed is sown.'"

ORIGINAL ARTICLES.

COURVOISIER'S LAW.

BY RICHARD C. CABOT, M.D.,
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IN 1890 Courvoisier[1] analyzed a large number of cases of diseases of the biliary tract, recording all kinds of statistics regarding them. When tabulating cases with reference to the conditions of enlargement of the gall-bladder, he was greatly surprised to find that when the common bile-duct is obstructed, enlargement of the gall-bladder by no means always follows. In cases of obstruction due to gall-stones, the gall-bladder was rarely enlarged, while if the obstruction were due to any cause other than gall-stones, the gall-bladder was almost invariably enlarged. Thus, out of 187 cases of obstruction of the common duct, there were 87 due to stones. In 70 of these 87 cases (or 80.4 per cent.) the gall-bladder was found atrophied, while in only 17 cases was it dilated. On the other hand, out of 100 cases in which the obstruction was due to causes other than stone, 92 were associated with dilatation of the gall-bladder, while in only 8 cases was the gall-bladder small or normal.

So far Courvoisier was judging wholly from the analysis of literature, but in looking over his own cases he found that the figures were equally striking. Out of 17 cases of obstruction of the common duct by a gall-stone, there were but four with enlargement of the gall-bladder, while out of 18 cases in which the obstruction was due to causes other than stone, 16 were associated with enlargement of the gall-bladder. Perhaps as short a method as any for stating Courvoisier's law is as follows:

When the common duct is obstructed by a stone, dilatation of the gall-bladder is rare. When the common duct is obstructed by other causes, dilatation of the gall-bladder is common.

Two years later Mayo Robson, the well-known English surgeon, independently came to the same conclusion. In his pamphlet on "Gall-Stones and Their Treatment" he stated the law as follows: "Jaundice with distended gall-bladder is presumptive evidence in favor of malignant disease, but jaundice without distended gall-bladder favors the diagnosis of cholelithiasis." Mr. Robson does not seem to be aware that Courvoisier deserves the credit for this law, but of its truth he has no doubt. Among the cases recorded in his recent book on diseases of the gall-bladder and biliary passages, there are 38 in which a definite statement is made regarding the size of the gall-bladder in cases of obstruction of the common duct. Thirty-five or 92 per cent. of these cases go to corroborate Courvoisier's rule. Out of 23 cases of obstruction of the common duct by gall-stones, 21 were associated with small gall-bladder and only 2 with large gall-bladder. Out of 15 cases of obstruction by cancer, together with 2 of obstruction of the cicatrix, only 1, a case of cancer, failed to show a dilatation of the gall-bladder. In 92 per cent. of these cases, therefore, Courvoisier's rule is borne out. Ecklin (quoted by Osler) finds that out of 172 cases of stone in the common duct, only 28 or 16 per cent. were accounted for by dilated gall-bladder, while out of 139 cases of occlusion of the common duct by causes other than stone, 121, or 87 per cent. showed dilatation of the gall-bladder.

Kehr[2] whose experience includes 409 gall-stone operations is very explicit on the subject: "In obstruction of the common duct by a stone the gall-bladder is usually small and not to be felt; in obstruction by tumor (cancer) it is usually to be felt as a large elastic tumor under the right ribs."

This rule, therefore, may be taken as tolerably well established by the statistics already quoted, especially as there are, so far as I am aware, no contradictory statistics. Naunyn in his treatise on cholelithiasis, 1896, treats the rule as a well-established one and makes the absence of dilatation of the gall-bladder one of the main points in the diagnosis of stone in the common duct. But curiously enough Courvoisier's rule seems to have been very slow in penetrating the minds of American physicians and surgeons. This I can readily show by a series of quotations from the more recent American treatises on surgery and internal medicine.

In the American Text-Book of Surgery we find the following statement: "When a gall-stone is arrested in the common duct there is obstruction to the outflow of bile and the gall-bladder becomes enlarged and may be felt as a rounded pear-shaped tumor." In Park's Surgery (article on the surgery of the abdominal cavity by Maurice H. Richardson and Farrar Cobb) this statement occurs: "Impaction of a stone in the common duct usually causes marked dilatation of the gall-bladder." In Dennis' Surgery, edition of 1896, article by Abbé, there is no reference whatever to the facts on which Courvoisier's law rests. The same is true of the article by J. W. Elliot in the International Text-Book of Surgery. Among writers on the practice of medicine, Osler in his last edition, 1898, makes a very clear and pointed reference to the truth noted by Courvoisier. But in the edition of 1895 the same facts are apparently not recognized, or at any rate are not made clear. In Tyson's Practice, 1896, p. 334, the author says: "If the gall-bladder is dilated and can be felt at the edge of the liver there is probably obstruction of the common duct, and if there is pain and tenderness, the obstructive agent is probably a gall-stone." Wood & Fitz's Practice of Medicine and Pepper's American Text-Book, 1894, make no reference to the subject.

In view, therefore, of the fact that most American writers on medical or surgical aspects of diseases of the gall-bladder, either make no ref-

[1] Beiträge zur Pathologie u. Chirurgie der Gallenwegen, Leiprig, 1890.

[2] Kehr. Gall-Stone Disease, p. 91.

erence to the facts emphasized by Courvoisier, or, as in the case of the articles by Tyson and Richardson above quoted, make a statement directly contradicting that which has found general acceptance in England and on the Continent, it has seemed to me worth while to tabulate from the records in the Massachusetts Hospital all the accessible cases bearing upon this point. This I have been enabled to do through the kindness of Dr. J. H. Wright, of the Pathological Laboratory and of the visiting surgeons of the hospital. The result of my study has been to confirm far beyond my expectations the truth of Courvoisier's rule.

My material consists of 30 autopsies and 56 cases which did not come to an autopsy, but in which the condition of the gall-bladder and of the common bile-duct was seen and felt at operation. Among these 86 cases were 57 of obstruction of the common duct by gall-stones, and 29 in which the obstruction was due to other causes, almost invariably cancer of the pancreas. Out of the whole 86 cases there were but 4 which violate Courvoisier's rule. The gall-bladder was atrophied in 47 cases of obstruction by stone, normal in 8 and enlarged in 2. In one of these 2 cases the record states that the gall-bladder was "moderately distended," but gives no figures regarding its size. In the other cases, 6 ounces of bile were evacuated from the distended gall-bladder. These 2 cases form the only exceptions to Courvoisier's rule out of the total of 57 cases of stone in the common duct.

On the other hand, out of 29 cases of obstruction by cancer of the pancreas or other cause not stone, there were but two in which dilatation of the gall-bladder was *not* found. In one of these the gall-bladder was empty; in the other it was contracted around three gall-stones. With the exception of these 4 cases which constitute only 5 per cent. of the total number examined, every record of the Massachusetts Hospital series in which definite statements are to be found concerning the points at issue goes to confirm Courvoisier's rule.

The explanation of the difference in the behavior of the gall-bladder following the obstruction of the common bile-duct by stone on the one hand or by other causes on the other is considered by Courvoisier to be the following:

In the great majority of cases when a stone blocks the common bile-duct, there are or have been stones in the gall-bladder itself. The irritation thus produced has resulted in chronic inflammation with thickening of the wall of the gall-bladder, such that the gall-bladder is no longer distensible. In the great majority of cases it is contracted or atrophied. On the other hand, in many of the cases in which the common duct is blocked by cancer of the pancreas or other cause outside the ducts, the walls of the bladder are thin and easily distensible, so that the backing up of bile behind the obstruction readily distends them. This explanation is supplemented by another offered by Fenger in the *American Journal of Medical Sciences* for February and March, 1896. Fenger finds that the stone is not always firmly wedged into the duct, but may be loose or "floating." Hence he conceives that in many cases the stone in the common duct has a sort of ball-valve action, whereby the obstruction to the bile is not complete for any length of time. Mayo Robson believes that both these explanations are correct and that each accounts for some cases. Of course, if the common duct becomes blocked by cancer when the gall-bladder already contains and has been irritated by stones, we may have the association of non-lithogenous obstruction and a small gall-bladder. This was the case in one of those tabulated above from the records of the Massachusetts General Hospital.

Now what is the use of this law? Quite obviously, I think, it is of value in the diagnosis of cases of chronic jaundice, with or without enlargement of the gall-bladder. Excluding those cases of dilated gall-bladder due to stone in the cystic duct and also those of acute cholecystitis in which we rarely have jaundice, we find a group of cases in which the most important signs are chronic jaundice, more or less intermittent, and the presence or absence of enlargement of the gall-bladder.

Now if it is true that within this group we can distinguish the curable from the incurable, the operable from the inoperable, the lithogenous from the non-lithogenous cases, chiefly or mainly by observing the indications furnished by Courvoisier's rule, the importance of that rule is not open to dispute. The statistics that I have quoted seem to me to warrant the conviction that this rule can be relied upon to an extent rarely possible in a matter so uncertain as physical diagnosis.[1]

REPORT OF A CASE OF DIAPHRAGMATIC HERNIA[1]

BY H. D. HOWE, M.D.,
OF HAMPTON, VA.

ON October 10, 1900, I was summoned hurriedly to see A. W., who, while "scorching" on his wheel with head bowed low, ran full speed into a cart coming in the opposite direction. The involuntary effort to check himself caused him to receive the full force of the blow against the end of the shaft just below the left breast, instead of on his head. He was hurriedly conveyed to the Hospital, where I saw him.

At this time all the symptoms of shock were manifest and it required the usual remedies quite vigorously applied to cause reaction. There was a contusion, with considerable swelling, about three inches in diameter, the center of which was over the sixth interspace in the left anterior axillary line. Respiration was shallow on this side, but the respiratory murmur was clear and distinct, and the heart's action, while feeble at first from shock, soon became regular and fairly strong. There was no vomiting nor cough and the pain was of a stabbing nature,

[1] From advance sheets St. Paul Medical Journal.

made more deep by inspiration. Although no fracture of a rib could be detected, I strapped the left chest from lower margin of the ribs well above the site of injury. This gave considerable relief. Aside from a small superficial slough at the point of injury, which healed very quickly after removing the straps on the second day, there was nothing interesting in his rapid convalescence. There was never any vomiting or intestinal trouble. The only respiratory change was the lack of full expansion over the base of left chest. At the end of six days the patient was discharged and resumed his duties and studies in a military school.

From this time until the patient's admission on May 17, 1901—a period of over seven months—he never once reported for sick call and was able to engage in various athletic sports, although his companions state he was never as active as before his injury. The recent trouble began after violent exertion in a jumping match, from which, after a few trials, he had to withdraw on account of pain in his chest. On admission to the Hospital the following morning he complained of nausea and a dull pain up and down the lower half of the sternum. Physical examination revealed a decrease in the respiratory movement of the lower half of the left chest, with distant breath sound. The heart was displaced to the right and upward. Its sounds were normal. The abdomen was somewhat scaphoid, but nothing abnormal was detected by palpation. The bowels were obstinately constipated. He was given small amounts of peptonized milk and divided doses of calomel and soda ordered. This was all vomited and rectal feeding was begun the following day. High enemas of various kinds had no effect on the constipation, which was constant until death. There was at no time any abdominal tenderness. Vomiting, which had been persistent, was relieved by gastric lavage. This gave so much relief that the patient requested its continuance and the tube was passed each day until his death. The stomach would hold only a small amount before retching would occur, yet there is no doubt of the tube having entered the stomach because of the large amount of inky-black contents washed out. Owing to the extreme weakness and irritability of the patient and the inability to change his position, the stomach tube was of little diagnostic aid as to the position of the viscus.

For a period of ten days from admission the patient was nourished almost entirely by enema. Emaciation had become extreme. The question of exploratory laparotomy for the location and possible removal of the obstruction which it was thought existed at the pylorus was considered and decided negatively, as the patient's condition was extremely critical the last five days of his illness and it was feared even an exploratory operation would be immediately fatal. On the tenth day, during a sudden syncope, which followed his usual gastric lavage, I was able to detect a most beautiful succussion splash and tinkle over the left chest as high as the fourth interspace. The coin test was absent. Above the fourth interspace the breath sounds were clear and regular though rapid. The patient died in a few hours. During the entire period of his sojourn in the Hospital he was able to rest only in a sitting posture and would frequently jump out of bed, if the attendant's back was turned, claiming that he obtained greater ease by standing. The facial expression was that of a most hopeless and pitiful sufferer.

The postmortem was made six hours after death. Rigor mortis was extreme, emaciation considerable. The stomach, transverse colon, upper part of descending colon and fully one-half of the great omentum were found in the left chest cavity. The rupture in the diaphragm was one and a half by one and a half inches, and was near the center of the muscular portion, one inch to the left of the esophageal opening. The edges of the hernial opening were indurated and rolled upward in the thoracic cavity. The heart was displaced to the right and upward. The lung was crowded up above the fourth interspace, but was normal otherwise. The stomach was somewhat dilated and contained about eighteen ounces of inky fluid. The hernia was not strangulated and there was no inflammatory condition of the stomach or intestines. At a point near the junction with the colon, the omentum was strongly adherent to the pleura in the sixth interspace—the site of the contusion of the chest. There was an almost entire absence of the intercostal muscles at the point of the old injury, but no fracture of the rib was perceptible.

SOME OBSERVATIONS, GENERAL AND TECHNICAL, MADE AT THE CRAIG COLONY[1]

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IN a visit of three months made to Craig Colony in 1899, for the purpose of studying the methods of treatment that have been so successful there, I was particularly impressed with the fact that the recognized presence of epilepsy did more to hide it than anything else. The most startling thing that the visitor to Craig Colony notices is not the prevalence of epileptic fits, but the absence of them.

In driving through the broad, rolling valley, with its winding ravine, one comes upon groups of men hoeing, making hay, digging and draining ditches, gathering and carting vegetables. In the orchards women are picking up apples and in the gardens weeding the beds. There is a tranquil, thrifty air to the scene, the rich loam of the soil, and the luxuriant aspect of the potato and tomato and cabbage fields, with the number

[1] From advance sheets of The Medical Report of Craig Colony.

of coloners at each task, which lead one to believe that he is on the lands of some well-to-do farmer. The impression is still deepened as one nears the great barns and poultry houses and sees more men leisurely working.

A little further and one is in a municipal center with the hospital, school-house, church and administration buildings, at the entrance to a village green with rows of cottages on either side. Glimpses of games, tennis, baseball, swings, a few bicycles, and groups of children under the trees, make the scene look like some Utopian village where everybody keeps his lawn in order and has good times. But with the exception of a few men in black-visored caps and a few women with white aprons, every man, woman and child in sight is an epileptic and might at any time need the care of one of the male or female nurses who assist and direct the workers.

In any problem, a common factor may be struck out and leave the relations of the component parts the same as before, and the factor of epilepsy, by virtue of its commonness, seems to be eliminated from the Colony life; or, rather, where in a normal village an attack would create a sense of horror and excitement, here it is passed over and barely noticed. The attendants are so quick to lay a patient down on the pillow that is always present even in the fields, and cover him up, that his fellow workers are scarcely aware of his seizure.

This method of eliminating all excitement and notice from the epileptic, seems to remove the dread and terror of the attacks, and has a perceptible effect in diminishing their frequency, as may be seen in many cases where improvement begins from the day of entrance, apparently from no other reason than that there was nothing to fear of danger, obloquy, or excitement in connection with a seizure.

The general method of treatment at the Colony as seen by an observer in its broadest lines seems to lie in whatever will take the mind of the patient from himself and his abnormal state and develop in him the normal qualities of manhood that have almost invariably been neglected in his life. In other words, it is a process of training to change the man from an idle, introspective invalid to a busy, useful, altruistic member of the community.

The most potent factors in this life are good food, open air, labor and sociability. But it is in the wise personal application of these factors that one sees the genius stroke that works the cure. A convict may have these same elements in serving out his term, but the epileptic at Craig Colony has them scientifically combined. He is made the subject of personal study, his heredity, his antecedents, his education, his social standing, are all taken into consideration, and he is given work that is congenial to him.

Many who come there do not know how to work. From childhood they have never been allowed to use a tool for fear of cutting themselves; to wash a dish for fear of breaking it; or to go to school for fear of creating a disturbance; therefore they live a life of idle stupidity, waiting for the next fit. Such persons at the Colony have Kindergarten and Sloyd training, and with the interest that comes with increasing deftness and occupation, they almost invariably improve and reach the point where they can engage in some of the Colony's real work.

The moral and mental effect of progressive work on the health of the epileptic has been shown in some who have never learned a trade because no one would employ them. They have here been given an opportunity to learn brick-making, printing, gardening, fine laundry work, sewing, shoemaking; in fact, almost any trade of normal village life; and such has been the effect of the combination of an interested mind and busy hands that several have gone away from the Colony, not only cured, but equipped to earn their living.

I learned with interest that, although the amount of work that each patient could do varied with the individual, the average was about one-third that of a normal man's labor.

The tact and patience of the nurse-assistants and teachers are at the basis of most of the improvement, because the epileptic has almost invariably been brought up in idleness, and labor presents itself to him in any light but that of a means of cure. It must be made interesting, it must be varied, it must be done with frequent intermissions for rest, it must be suggested as a favor, rather than a duty, and yet for the sake of the community's support, it must be done well.

It is sometimes weeks, even months, before a man finds his niche. He tries his unskilled hands at gardening, poultry raising, milking, shoepolishing, and perhaps finds his congenial occupation in waiting on table, or tending store. And when a man does find a congenial occupation, he generally improves in health and has less frequent attacks as his interest increases, and thereby repays by the value of his labor the effort made for him.

The cultivation of the social side of the epileptic appears to be as difficult as it is beneficial. Partly as a result of social ostracism and partly as a symptom of his disease, the epileptic is nervous, excitable and irritable. He is generally hard to live with in any circumstance, and in the aggregate he presents a very difficult problem that the Colony has, however, met with great success.

The social privileges that the patients have hitherto been debarred from are not only offered, but they are taught to enjoy themselves. The nurses teach the girls to dance, and every evening waltz music is heard. The young men are taught to play baseball, and the Saturday afternoon audience is taught to enthuse over the game. Picnics and games are made as mirthful as is possible to those that do not know mirth; but gradually the spirit of enjoyment serves to drive away the despondent apathy, and the actual en-

joyment of play saves the outbreak of temper which excites the attacks.

That such elaborated schemes of work, combined with amusement, are at the basis of the improvement observed in the Colony's patients, can be proved by noting the reverse side as seen from the experience of the lecturers and assistants. As an example: The master of the brickyard stated that on bright days when each man was busy hauling clay, puddling, pressing or piling bricks, according to his degree of efficiency, there would hardly be a fit among them; but let the day's work be interrupted by showers and the men obliged to congregate in close quarters for an hour in the shed, with leisure to grumble, and quarrel, and sulk, there would be fifteen or twenty attacks in that time.

In the same way, the matron of one of the women's houses stated that if each inmate did her task under pleasant authority, and the day was quiet and well ordered, with some pleasant recreation, the seizures were few and far between; but any scene or excitement that broke the even tenor of the day would be followed by an unusually large number of attacks.

Undoubtedly the mental attitude plays an important part in the frequency of the epileptic attacks, and it is interesting to observe how thoroughly this is impressed upon the minds of those in charge and all their assistants, so that their efforts and skill are all directed to keeping the patients' minds healthfully occupied and happily diverted; thus the evil effect of one person in an attack setting a number of others off only happens occasionally, and then serves as an illustration of how forceful is untoward suggestion and a perverted mental attitude in epilepsy.

One of the chief points of interest to a physician of city practice, where he sees his patients only at intervals, and then in the midst of their own peculiar social surroundings, is the complete revolutionizing of the ordinary haphazard life of competition into the healthful life of a village sanitarium, yet preserving enough of the community spirit to in part support life.

The problems of the resident physicians and superintendent include the civic problems of the mayor of a city, the trustees of a school, the deacons of a church; they require good practical grip on the laws of supply and demand, to feed a thousand people from the products of the soil and stock, and to turn the surplus to money value. They require an immense capacity for executive detail, and a perennial supply of tact to guide a village full of peculiar people into ways of health and usefulness, and at the same time keep a steady eye on the State appropriation and approbation.

Added to all this is the elaborate detail work of a purely medical nature, the study of peculiar cases, the unearthing of causes and experiments on various diet regimens, and the newest methods of treatment that the study of this branch of neurology is constantly suggesting.

My interest in Craig Colony as a social, philanthropic and medical institution increased daily as I perceived its far-reaching effect. Every patient there represents as many homes in the State, and perhaps five times as many working people relieved of the support of a non-productive member. It means the freedom for active labor of at least one member of the family who would otherwise be obliged to care for the helpless one. It means the economic use and development of all the labor that the epileptic is giving toward his own support. It means the greatest opportunity that any country has hitherto had for studying the disease in its hereditary, causative and therapeutic aspects.

And, by no means least, it makes life reasonable and bearable for most, while for others it strengthens and cures; so that, as a physician whose experience has been limited to city clinics and private practice, I hardly know which to admire most—the breadth of mind that evolved Craig Colony, or the conscientious, wise and energetic administration of its affairs.

RECENT EPOCH-MAKING IN MEDICINE—ANNUAL ORATION DELIVERED BEFORE MICHIGAN STATE MEDICAL SOCIETY.

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AT a meeting of the British Pathological Society of London, April 6, 1875, the "germ theory" of disease was first formally introduced for discussion; the discussions were very animated and earnest and were continued at subsequent meetings. This conference was attended by distinguished medical men, some of whom were profoundly impressed by the arguments brought forward in favor of the "germ theory." The co-existence of bacteria and contagious disease was admitted, but Dr. Bastian, one of the most prominent speakers, contended that they were pathological products spontaneously generated in the body after it had been rendered diseased by real contagion. The grouping of the ultimate particles of matter to form living organisms was considered by the speaker to be an operation as little requiring the action of antecedent life as their grouping to form any of the less complex chemical compounds.

Status of Opinion.—Prior to this meeting in London, Henle in 1840, after mature deliberation, weighing all the evidence that had been collected, determined that the cause of infectious diseases was to be found in minute living organisms or fungi. Henle may be truly looked upon as the true propounder of the "germ theory" of disease. He not only collected facts but formulated opinions and investigated the subject with such great ability that Koch in after years promulgated the same opinions determining the relationship between bacteria and disease. In 1862, Pasteur published a paper on the "Organized Corpuscle Existing in the Atmosphere," in which he demonstrated that many of the floating particles

which he had collected from the atmosphere of his laboratory were organized bodies, and if these were placed in sterile infusions, abundant crops of micro-organisms were obtained; and by subsequent more exact methods and experiments by himself and others, showed clearly that the cause which imparted life to his infusions came from the air. Listerism originated in 1875, and when Koch published his famous work on the Wund-infectionskrankheiten (traumatic infectious diseases), in 1878, it spread slowly at first, but surely to all departments of medicine and surgery.

From time to time as the need was realized, men of genius have provided devices and instruments of material aid in their work; some of these have made possible subsequent discoveries. Among them may be mentioned the improvement of the compound microscope, the use of sterilized culture fluids by Pasteur, the introduction of solid culture-media and the isolation methods by Koch, the use of the cotton plug by Schroeder and Van Dusch and the introduction of the anilin dyes by Weigert. It is an interesting fact to note that after the discovery of the anthrax bacillus by Pollender and Davaine in 1849 there was a prolonged period during which no important discoveries of pathological organisms were made, but during this period important methods of technic were elaborated. This was again followed by a period during which important additions followed each other in rapid succession. In 1873 Obermeier discovered the Spirillum Obermeieri of relapsing fever. In 1879 Hansen made the announcement of the discovery of bacilli in the cells of leprous nodules. During the same year Neisser discovered the specific gonococcus of gonorrhea. In 1880 the typhoid bacillus was first observed by Eberth and independently by Koch. During the same year Pasteur published his work on "Chicken-cholera" and the pneumococcus was described by Sternberg. It was in the year 1882 that Koch made himself immortal by announcing to the world the discovery of the tubercle bacillus, and in 1882 Pasteur published a work on "Rouget du Porc" and Löffler and Schutz reported the discovery of the bacillus of glanders. In 1884 Koch announced the discovery of the "comma bacillus," the cause of cholera, and at about the same time Löffler discovered the diphtheria bacillus, and before the end of the same year Nicolaier the tetanus bacillus. In 1892 Cannon and Pfeiffer discovered the bacillus of influenza. In 1894 Yersin and Kitasato independently isolated the bacillus causing the bubonic plague. In 1894 Sanarelli discovered the bacillus icteroides, supposed to be the bacillus of yellow fever.

During the last quarter of a century the science of bacteriology has made triumphant strides, revolutionizing our ideas, especially in relation to infectious diseases, their etiology, diagnosis and treatment. Among the diseases upon which information has been of greatest value are tuberculosis, diphtheria, tetanus, bubonic plague, etc.

In 1875 there were few scientific men who had accepted the germ theory. The great majority, adhering to the doctrine of spontaneous generation, believed with Billroth that the presence of fungi where decomposition was in progress was an accident result of their universal distribution, or, being more conservative, that their presence in putrid wounds was produced spontaneously, or in unquestionable artificial media.

Diphtheria Antitoxin Treatment.—McFarland says that on his part, all possible skepticism of the specificity of the bacillus of Löffler was dispelled by an accidental infection that kept him housed for three weeks during the busiest season of the year. Without having been exposed to any known contagion from diphtheria, while experimenting in the laboratory, a portion of a living virulent culture of the diphtheria bacillus was drawn into a pipette and accidentally entered his throat. Through carelessness no precautions were taken and as a result of the accident, he says, "Two days later my throat was full of typical pseudo-membrane, which public and private examination showed contained the Klebs-Löffler bacillus."

Prof. Welch of Johns Hopkins Hospital has perhaps furnished the most reliable, as well as the largest, statistics upon the result of the antitoxin treatment of diphtheria. His report, excluding every possible error of calculation, shows an apparent reduction of case mortality of 55.8 per cent. Another very important point shown by Welch, illustrating the importance of early treatment, is that 1,115 cases of diphtheria treatment in the first three days of the disease yielded a fatality of 8.5 per cent. as against 546 cases injected with antitoxin after the third day yielded a fatality of 27.8 per cent. Thus was established the fact that after the toxin had set up destructive organic lesions in the various organs of the body, no amount of neutralization will restore the integrity of the parts; consequently, antitoxins must fail in these cases. The great necessity for early treatment was demonstrated.

Syphilis.—In 1884 and 1885 Lustgarten published a method for staining bacilli which he found in syphilitic tissue and assumed to be the cause of the disease. The most recent research upon the bacteria of syphilis is that of Van Niessen, who claims to have cultivated a syphilis bacillus from the blood of a few cases. In Van Niessen's inoculation experiments there were observed as evidence of the specificity of the organism discovered by him: (1) Abortion in pregnant female rabbits; (2) extra-genital primary lesions on the ears of inoculated rabbits in the form of nodes; (3) secondary ulcer and tumor formations and irregular lesions. The researches of others have up to the present time failed to confirm the above results, consequently the specific bacillus has not been fully established.

Bubonic Plague.—Considering our increased possessions in the Eastern Hemisphere, the importance of the recognition of this most dreaded of all diseases can be appreciated when our United States Marine Hospital Service reports the introduction of the plague for the first time

in the Western Hemisphere. Its appearance in Santos, Brazil, in October, 1899, marks an epoch in plague literature, as furnishing the very first recorded instance of the disease in the Western Continent. During November of the same year the disease was carried to New York by a British steamship. During the latter part of December, 1899, the plague made its appearance in Honolulu, and its appearance in California is so recent that the mere mention is sufficient.

This disease furnished a striking illustration of the scientific advance of modern medicine. It was not until 1894 that positive knowledge of its true nature became known. Prior to that time, all through the centuries, the subject had been enveloped in darkness, and there has been the same groping after facts, the same unsuccessful search for the true cause, the same struggle in ignorance against its ravages on the part of the physicians, sanitarians and public officials as has marked the history of that other dread disease, cholera, now also robbed of its terror by science. Now, the cause of the plague, its method of propagation and the means to prevent its spread, are matters of scientific knowledge. To Pasteur and his contemporary, Koch, is due the credit for the possibility of this discovery by their establishment of bacteriology as a science, and to a Japanese physician, Dr. Kitasato, and to the French Dr. Yersin we are indebted for the discovery itself.

The fact is now established that the plague is an infectious disease caused by a specific bacillus, discovered by Drs. Yersin and Kitasato. The anti-pest serum of Yersin and Roux has been tested and gratifying results obtained, and also from the Haffkine prophylactic serum, the latter for the prevention and the former for its effects upon the bubonic poison, neutralizing the same in the system. The French Commission, who have recently investigated the efficacy of the anti-pest serum in Portugal, report that in cases treated with the serum the mortality was 14 per cent., and in those without it 70 per cent. In a recent lecture given by Roux at the Pasteur Institute, a striking illustration is given of the efficacy of the treatment of the disease by the Yersin serum. "The Bombay manager of the local branch of the Credit Lyonnaise resided with his wife, children and a numerous retinue of native servants, in a dwelling in an infected portion of the city. His little daughter was stricken with the pest in a virulent form; was treated with the serum and made rapid and uneventful recovery. As a precautionary measure the whole family were subjected to inoculation and the same measure of treatment was offered to the native domestics. Some accepted and escaped infection, while six who declined on the ground of religious scruples were all stricken and five died. It seems that a more crucial test could not have been devised or a more triumphant vindication obtained."

The *British Medical Journal* reports the result of the Haffkine prophylactic in the villages of Bombay, showing the reduction of the mortality of those inoculated as 80 per cent.

The work of the recent Federal Commission in establishing the disputed fact that the plague existed in California was a signal triumph for modern scientific achievement.

Typhoid Fever.—Clinical value of the serum diagnosis. In 1896 Widal and Grunbaum, working independently, discovered that when blood-serum from typhoid-fever patients is added to cultures of the typhoid bacillus a definite reactive phenomenon occurs. This phenomenon is known as the "Widal reaction," and consists in complete loss of the motion of the micro-organisms, so that they gather into clusters or groups—agglutination. The Widal test was applied to 230 cases of typhoid fever among soldiers who had enlisted in the Spanish-American War and who were treated in the Medico-Chirurgical Hospital. Of these, 219 reacted positively, or 95.64 per cent. of the total number examined. The results obtained in Osler's wards in the Johns Hopkins Hospital by Block and Gwyn up to November, 1898, show that in 151 cases the reaction was present in 144. Granting the precision of method of serum diagnosis, it is doubtless of great diagnostic importance. As shown by the statistics given, the reaction failed to develop in only 4.5 per cent. out of the total of 2,393 cases of typhoid fever. And it is probable that this small percentage of failures would be reduced if the test (when negative at the first examination) were repeated every day or two until convalescence is fully established.

Stomach.—During the last ten years phenomenal advancement has been made in the diagnosis and treatment of disease of the stomach: The gyromele has been invented; the gastrodiaphane perfected; the perfect gastric electrode invented; the gastric bucket invented; X-ray pictures of stomach made; a quantity of lavage apparatus devised; gastroscopy made fairly practicable, and a number of gastric operative procedures devised.

Scope and Clinical Value of Blood-Examination.—Hematology being a comparatively new study and sufficient time not having supervened since the beginning of blood-examination for clinical diagnosis, the limit of usefulness has not yet been determined. Thus far the results have been very uncertain, disappointment sometimes resulting when the opposite was expected and again much light has been thrown when least anticipated. There are not as many diseases as we have fingers in which the diagnosis is made by blood-examination alone, but there are many diseases in which blood-examination is a decided help; not definite signs, but links in a chain of evidence are what we expect and get. On the whole, blood-examination is not second in results to examination of the urine. Both methods give definite results in a few diseases, and sidelights in many obscure conditions, even if the examination is negative. It has one very decided advantage, *viz.*, that the examination can be

made during the life of the patient, and like all methods of physical examination, if there is any cause, such as insanity, stupidity or unconsciousness, preventing the intelligent communication with patient, and in all febrile diseases much light can be given.

The Rôle of the Mosquito in Fevers.—It is now conceded to be a fact that the genus Anopheles conveys the parasites of malaria from man to man. A résumé of the literature on this subject would consume an entire evening. Important observations are now being made by original workers in the tropics and much information of practical value to the clinician is being worked out. The most striking fact which has apparently been definitely established and corroborated by recent experiments is that the cause of yellow fever is present in the blood of those attacked, and that certain mosquitoes can inoculate and that it is not transferable by the fomites. This is looked upon as a very important medical discovery, removing a large part of the mystery relative to the etiology of yellow fever.

Cancer.—Relative to the cause of cancer, Roswell Park of Buffalo and his collaborators at the State Hospital have been doing some excellent work. Park reports having been able to produce a true adenosarcoma in an animal by inoculation with fluid from the peritoneal cavity of a man suffering from colloid cancer of the omentum.

The Roentgen Rays in Practice.—Since the discovery, about five years ago, of the Roentgen rays, great advances have been made in the practical application of this mysterious form of energy. Somewhat reckless predictions have been made, born of enthusiasm at the startling revelations. However, time, which is of such great importance in testing new discoveries, has proven that the application of the rays is of great diagnostic and therapeutic value. At one time it was seriously feared that the prolonged exposure thought necessary for successful observation would interfere with its usefulness. Valuable improvements have been made in technic enabling the obtaining of very important results in brief periods and with our present knowledge, a diagnosis is possible in shorter time and with greater precision than could be obtained in any other way. With it, foci of tuberculous infection can be distinguished earlier than by the ear. It will show either unilateral or bilateral enlargement of the heart with any displacement of the organ. Emphysema, asthma, pleurisy, hydropneumothorax, pyopneumothorax, hydrothorax, and pneumonia, are all easily recognized and their limits demonstrated. Thoracic aneurisms are recognizable in their early stages. Cavities which have escaped detection by auscultation or percussion may be discovered. The presence of fluid in the pleural sac may be positively determined. Dr. Senn refers to the use of the X-ray during the late war as fully answering the expectations for diagnostic purposes. He says: "During the Spanish-American war the skiagraph enabled us to diagnose the existence or absence of fracture in a large number of doubtful cases in which we had to depend exclusively on this diagnostic resource. In fractures in close proximity to joints it has been of the greatest value in ascertaining whether or not the gunshot fracture extended into the joint. In the light of recent experience the X-ray has become an indispensable diagnostic resource to the military surgeon in active practice, and the suggestion the every chief surgeon of every Army Corps should be supplied with a portable apparatus and an expert to use it, must be considered a timely and urgent one." Its limit of usefulness has not yet been determined in medicine, but the X-rays have rendered valuable aid in the treatment of diseases of the skin, among them lupus vulgaris, lupus erythematosus, chronic eczema, vascular nævus, hypertrichosis, favus, and sycosis, and also in other pathological conditions of internal organs.

Neurology.—In considering the burning questions of the day one must include the bacterial toxins, serotherapy, organotherapy, autointoxication and the relations of the internal secretions to problems connected with the nervous system, that part of the human organism which in the main is accountable for man's lofty position which he holds among animals. The last decade has given birth to unprecedented activity in connection with the progress in neurology. The results obtained have led to a complete revolution in our ideas concerning the elements of the nervous organs and their mechanical relations and supplied us with a host of new methods of investigation in the prosecution of the study of the nervous system in health and disease. Entirely new avenues of research have been opened and problems heretofore thought beyond the reach of scientific inquiry now seem within human grasp. So numerous have been the methods of original research pursued that space and time forbid passing them in mental review.

I shall briefly mention a few of the main achievements in neurological science. Among the names which have shed new luster on the subject is one Ramon y Cajal; his connection with original work has been both brilliant and fruitful. If popular history can be relied upon, the story of the young Spaniard is remarkable from a medical standpoint. Developing in a country remarkable for its barrenness in original research, he applied for a position in microscopy, which was refused him. Being industrious and ambitious, his pride was wounded keenly. Disappointed, but not discouraged, he purchased a small library on histological subjects and microscopical appliances and began his original work, paying special attention to technic. He practically ostracized himself from society, worked like a slave and a decade later found himself famous. A brief inquiry into the contributions of this Cajal cannot fail to make clear why from different parts of the scientific world his productions attracted attention and gained for him a professorship at Madrid and notice and appre-

ciation by international audiences. This has been accomplished since 1888. Among the original contributions are: (1) the demonstration of the complete independence of at least the majority of nerve elements; (2) the appreciation of the widespread occurrence and significance of the lateral branches of the axis-cylinder processes; (3) the demonstration of the striking uniformity in general structure of the majority of nerve elements in all parts, despite minor morphological elements.

Since 1880, investigations of Golgi, His, Kölliker, Cajal and others have produced a complete change in our ideas, in relation to the elements of which the nervous system is constructed and also the mode in which these elements are architecturally put together. The Golgi method of staining tissue has become recognized in the whole scientific world, as the pictures of nerve-cells and their processes obtained by this method are incomparably superior to those obtained from any other method. Cajal, with his incomparable genius, made new applications of the Golgi method which created widespread attention and were looked upon in the light of a new discovery, and anatomists everywhere, in Germany, Von Kölliker and others, in Belgium, Van Gehuchten, in Sweden, Retzius, in England, Schäfer and Andriezzen, in America, Berkley and Strong and a host of others in this and other countries, set to work with this new method of osmo-bichromate mixture and silver nitrate and in a short time a new vista was opened up, and information supplied regarding the reciprocal relations of nerve units in the various parts of the cerebrospinal and sympathetic nervous system. The connection of the axis, cylinder processes of the cells of the neural horns with the axis cylinder, of the fibers of the motor roots of the spinal nerves, were first absolutely established by Weigert's method and the carmine methods of Gerlach. This in conjunction with improved technic in sectioning has contributed greatly toward the investigations in neurology.

The Neuron Concept.—In 1891 Waldeyer brought to the notice of the profession the doctrine of the individuality of the nerve elements. The neuron concept of the nervous system, in a nutshell is briefly, as follows: The nervous system, aside from its neuroglia, ependymal cells, blood-vessels and lymphatics, consists of an enormous number of individual elements of neurons. Each neuron in its entirety representing a single body or cell. The foundation for the neuron doctrine rests upon the following facts: (1) That the nervous system agrees with other parts of the body in being cellular; (2) the proof that in the embryo the nerve-cells exist as independent units, many of which are capable of wandering for considerable distance from the origin; (3) the fact that the nutrition of the nerve-cells is most easily explained from the standpoint of a doctrine which looks upon the nervous system as made up of units, which are not only anatomical but physiological.

Since this doctrine was advocated a large amount of work upon degeneration of nerve fiber and cells, has been done, especially by Marchi, which confirms the validity of the neuron doctrine; the latter being of value in enabling the histologist to follow the diseased nerve fiber to its termination. The conception of the neuron has helped to facilitate our understanding of some diseases, in showing that there is no cardinal distinction between gray and white matter, and it has helped to unravel the mystery which formerly surrounded those diseases that involved almost simultaneously the various systems of white fiber and the gray matter. Proportionately with the growth of the neuron concept the value of systemic diseases is lessened.

Psychiatry.—Do what we may, we cannot separate mental diseases from organic diseases of the brain and, indeed, diseases of many other organs of the body. The line of demarcation is so indistinct between the mental and physical conditions that in many instances one merges into the other. One of the foremost alienists of Europe said some time ago that psychiatry is on a level with the medical sciences of a hundred years ago, and that it was based wholly upon clinical studies and not upon pathological anatomy of diseased organs. A few years ago the American Medico-Psychological Association, whose membership is made up chiefly of men in charge of hospitals or asylums, where the insane are cared for, invited Dr. Weir Mitchell of Philadelphia to deliver the annual address. The eminent physician during the course of his remarks made some severe criticisms upon the lack of scientific work in hospitals for the insane, which aroused some indignation. That there is abundant material for scientific work, both clinical and pathological, in our large asylums, is undeniable and that there has been marked advance, both in the character of the clinical work done, also in honest endeavor along etiological lines, is conceded. That greater advancements have not been made is not to be entirely attributed to inertia on the part of those in charge, but is largely due, especially in relation to causation, to the well-known fact that the morbid pathology of the brain is more compiex than any other part of the human organism. Our asylum reports to-day, instead of being full of stereotyped data, are fast becoming storehouses of useful information, in relation to all that pertains to the care, cause and treatment of these unfortunates. To the practical psychiatrist the question of domiciliation does not overshadow every other desideration as it has done in the past. During the last decade the importance of the early diagnosis and treatment of mental disease, with accompanying pathological conditions, prompt separation from domestic surroundings and skilful treatment, mental, moral and physical, are questions which are of intense interest. The closer observation and recording of clinical facts and more systematic laboratory work by competent persons, either on the staff

or outside, have been established in many institutions. The pleasant, cheerful rooms and airing-court have taken the place of the darkened cell. We have the trained attendant, the beautiful grounds and modern architecture. The Kirkbride system took the place of the old quadrangular form of building, and now the cottage system in some form is fast superseding all others.

The work of Meynert on the cerebral cortex and the researches and experimental labors in Europe of Charcot, Flechsig, Wernicke and others, have done much to illumine hitherto considered impervious conditions. The work of the New York Pathological Institute under the leadership of the brilliant Van Gieson has received the recognition and commendation of many of the original investigators of this country as well as those of Europe; also the original contributions of Berkeley on the pathological lesion of the brain have stimulated the study of psychiatry throughout the hospitals for the insane of the United States. It is in keeping with this spirit and the honest endeavor on the part of those interested in the science of psychiatry, together with the increase of insanity ever and above the increase in population, which makes possible a psychopathic hospital in our State as established in connection with the older universities of Europe. At the present time there is no branch of medical science which offers so many interesting problems to solve. The past has been full of disappointments, but the future is full of hope.

We begin the twentieth century under most encouraging auspices. The century just closed will be known as the period of marvelous scientific achievement, pertaining to many of the departments of medicine and surgery and bringing to an end the age of dogmatic medicine. There are still many important subjects now receiving the most careful and profound consideration from scientific men in different parts of the globe; science in its march of progress knows no nationality, from Germany, Belgium, Sweden, Japan, Russia, Italy, France, Spain, England and our own country, come the reports of work embodying the true spirit of scientific research to an eminent degree. What of the future? That more brilliant achievements are soon to follow, few will doubt. Serotherapy is in its infancy and, although one of the crowning triumphs of the nineteenth century, in its use there are certainly great possibilities.

Psoas Abscess.—In these cases, even with very large abscess, R. W. MURRAY, LARKIN and others (*Liverpool Medico-Chirur. Jour.*, Sept., 1901) have obtained complete cure by incision in both lumbar and iliac regions, and sometimes also in the femoral region. The abscess cavity is thoroughly cleansed and the wounds all closed without drainage. The good results have been especially observed in children.

DEFORMITY ARISING FROM INJURY TO THE LOWER EPIPHYSIS OF THE TIBIA.[1]

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Case I.—In 1890 a boy eleven years of age had a gradually increasing deformity of the left foot. The following history was given: At two years of age he had disease of the tibia requiring operative intervention. The anterior surface of the tibia was marked by cicatrices. The foot was carried inward so that the body

weight was transmitted to the ground along a line passing to the outer side of the foot. This deformity was observed to increase constantly and the disability was more marked as time passed. The explanation which suggested itself as the causative factor in this increasing deformity was in a relative shortening of the tibia in its relation to the fibula. This relative shortening no doubt resulted from the inflammatory affection of the bone in infancy, which had caused a synostosis at the junction of the lower tibial epiphysis with the shaft and consequent relative loss of growth in length of that bone while the fibula made its normal increase in length.

Operation.—A section about one inch in length was removed from the fibula subperios-

[1] Read at the meeting of the American Orthopedic Association, June 11, 12 and 13, at Niagara Falls.

teally and the tibia was cut through at the same level as near to the lower end as was thought safe, and the foot moved outward in its relation to the leg, to its normal position. On account of the boy's age it was thought that the deformity would recur, hence the epiphyseal cartilage was removed from the lower end of the fibula. Healing was satisfactory and the result gratifying, the boy having a well-placed foot with about two inches of shortening. Some years subsequently it was found that the foot retained its corrected position and that the measures adopted had been entirely successful.

Case II.—T. W., sixteen years of age, while playing in a barn three years previously, had jumped from a height, fracturing the leg near the ankle. The adjustment of the fracture and recovery were uneventful, the leg and foot being found in good position with normal movement. After the lapse of nearly a year it was noticed that the foot was disposed to turn over upon its outer border and this tendency increased constantly as time passed, till at the end of three years the foot could not be kept directly under the transmitted body weight and walking was becoming increasingly dangerous.

It seemed manifest that either the primary injury consisted of a separation of the tibial epiphysis or that the process of healing in a fracture near the epiphyseal junction had caused premature osseous union between the epiphysis and the diaphysis.

Operative measures similar to those employed in Case I. were carried out, with the exception that the age of the boy precluded the necessity of removing the epiphyseal cartilage from the fibula. The result is highly satisfactory.

Case III.—Norman T., eight years, when playing in a harvest-field four years previously, had run in front of the knives of a reaping-machine, which cut the leg just at the ankle-joint, so that the only structures left uninjured were the tendo Achillis and the blood-vessels, nerves, and tendons behind the inner malleolus. The surgeon in attendance found that numerous pieces of bone had been shaved off. These were removed and the suturing of nerves and tendons carefully done. Healing was satisfactory and the result excellent, the foot being in good position and having good movement.

After a considerable lapse of time an inward displacement of the foot was observed similar to that described in the former cases. A similar explanation, I am confident, will alone account for the deformity. So far as I know there has been no operation performed as yet for the relief of the deformity in this case.

Separation of the epiphyses is not of frequent occurrence; and of the various epiphyses separation of that of the tibia is one of the less frequent to happen. Mr. Hutchinson, as quoted by Treves, in 1895 had seen 17 cases of separation of the lower radial epiphysis; 14 or 15 of the lower humeral; 13 of the upper humeral and 10 of the lower femoral. In a collection which he made of over 350 reported cases there were of the lower femoral 75; upper humeral 66; lower radial 54; lower humeral 52; internal epicondyle 38; lower tibial 27; upper femoral 26; great trochanter 11; upper tibial 10; tibial tubercle 6; lower ulnar 6; upper fibular 4; clavicular 3; upper radial, upper ulnar, and lower fibular 2 each; small trochanter 1.

I can find no reference in literature to the production of the deformity which has been described in this paper. Synostosis at a time when the growth is not complete, and consequent relative shortening of a limb are frequently noted; but I have not found any reference to deformity consequent upon early synostosis occurring in one bone at a part where there are two bones forming the proximal portion of a joint. I have not seen a similar deformity of the hand, but have seen a plaster model of a hand and arm whose deformity must have been caused by a similar epiphyseal injury.

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DANGERS TO PUBLIC HEALTH AND MORALS, ESPECIALLY TO YOUNG PERSONS, FROM QUACKERY, AS PROMULGATED BY PUBLIC ADVERTISEMENTS.

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QUACKERY is defined by the Standard Dictionary as "boastful pretension, or ignorant or fraudulent practice; charlatanry."

True scientists and really great discoverers are modest and unassuming. From Hippocrates down to our own quiet workers nearly all great advances in arriving at a clearer and more thorough knowledge of the causative factors of disease and the best means of effecting cures and alleviating human suffering as well as the most effective methods of staying the ravages of plague, pestilence, and epidemic diseases have been accomplished by men who shunned publicity and notoriety, who spent long years of patient and arduous toil in perfecting their results.

Were these men sustained, encouraged and helped in their unselfish efforts to remove the ills, soothe the sufferings, and raise mankind to a higher and happier plane? The echoes of history reverberating down the corridors of Time answer with a most emphatic No! Instead of being helped, encouraged and rewarded, they were nearly always abused, vilified, and in some cases almost mobbed on account of the work they were doing. As illustrations of this, wtiness the struggles and persecutions through which the early anatomists and physiologists had to pass in their endeavors to gain a clearer and more comprehensive knowledge of the structure and functions of the human body for the purpose of curing or alleviating its diseases. Think of the ridicule and abuse heaped upon Jenner, the immortal discoverer of vaccination, whose great discovery saved many lives, relieved much suffering, and,

by lifting the dark pall of terror and dread, did much to raise mankind from the abyss of gloom and despair, and, while endowing all races and peoples with safety against this dread destroyer, inspired them with hope and comfort.

We need not go back to the remote past for examples of this perversity and misrepresentation; we have our own antivivisection societies, and other obstructionists who are "moving heaven and earth" and resorting to every means, fair and foul, in their efforts to impede the progress of science and obstruct the work of scientific investigators. In order to compare the conditions under which we at present live, and those which existed under the régime of empiricism and restrictions for which the obstructionists are so loudly clamoring, let us draw aside the curtain of history and gaze on the results of thousands of years of empirical experience.

Do this, and we behold plague and pestilence sweeping over the land, leaving desolation and death in their track. Here we see cities converted into vast charnel houses, the streets covered with dead bodies, and not enough well to care for the sick and dying; there we behold uncoffined corpses rolled into great trenches, or left as food for ravening animals or to pollute the atmosphere.

We who enjoy the immunity afforded by vaccination can scarcely believe that such ravages were caused by smallpox in London as are so graphically described by the historian Macaulay, who informs us that it was a rare thing at one time to find a person in that great city not disfigured or marked by the dread disease. When we emerge from the mephitic atmosphere, laden with ignorance, disease and death, of the London of two centuries ago, with its death-rate of 80 to the 1,000, into the clear light of sanitary and medical progress of the present time with its death-rate of less than 20 to the 1,000, in civilized countries, we feel like one who has passed through some terrible danger, who has been surrounded by invisible and relentless enemies, which, happily, have been routed or are being put to flight by the knowedge resulting from experimental investigations.

But why, you ask, are such things possible? How can human perversity go to the length of standing in the way of those things which are most essential to human development and the welfare of the race? How can reason tolerate such a suicidal course?

To the unselfish lover of truth and humanity the above may seem an insoluble question, but the careful student of men and events, who clearly sees the intimate commingling of good and evil in the world, appreciates the fact that while good is generally quiet and retiring, depending on the truth and justice of its claims to secure its ultimate recognition, error and pretension are bold and arrogant, and use every possible means to compel the world's recognition, and supplant the truth.

Quackery, owing to the boldness and effrontery of its claims as well as the insidiousness and wide diversity of the means used for its promulgation, has become firmly established and is making most strenuous efforts to maintain its position. While many things contribute to the continuance of its influence and power, no other one agency is so powerful; indeed, I believe I am justified in saying that all other agencies combined are less potent in maintaining its baleful prestige than public advertising and public notices in newspapers and magazines.

In proof of this statement I desire to call attention to the following facts: The statements, arguments and everything calculated to promote the propaganda of antivaccinationists, antivivisectionists, Christian scientists, osteopaths, vendors of quack medicines and sure cures of all kinds, as well as fakirs and swindlers of every class, nationality and description, who are using every means in their power to hinder and impede scientific medicine and sanitary science, are given laudatory notices and unlimited space in the newspapers, while the scientific physician is not even accorded space in the papers which published the pseudo-scientific vaporings, misrepresentations, and attacks, to answer them. Why is this? Because these fakirs pay well for their advertising space; indeed, they contribute a considerable part of the revenue of large newspapers, and as reputable physicians do not do this, the advertisers receive the whole support of the newspapers, no matter how false their statements or how nefarious or harmful their business may be. Then, too, when so-called commercial or business interests are at stake, behold how these self-constituted guardians of public health, conservators of public morals, and promoters of justice and truth do vilify those who are trying to do their duty and protect the public! How they cover up or pervert fact, and use every means in their power to hinder scientific investigations was well illustrated in the recent outbreak of bubonic plague in San Francisco. Such a policy as this, like the ostrich hiding his head in the sand, is extremely shortsighted and harmful, suicidal, indeed, we might say, because when the truth becomes known, the right prevails, and the guilty city or town must suffer the penalty of its selfishness and duplicity.

By the prominence given in the newspapers to the statements of those who oppose sanitary measures, such, for instance, as the opposition to vaccination, the isolation or quarantining of contagious diseases, and similar measures, many people are led to believe that such measures are unnecessary, and a harsh assumption of arbitrary power; also that they are only advocated by a small clique of health officers, so that, instead of hearty co-operation with the health authorities in their efforts to stamp out disease, cases are concealed and new foci of infection are established. This results in the spread of diseases and in much loss, suffering and death. In the same way the wide publicity given by means of public notices, to the opposition to scientific experiments

on living animals, which have for their object the discovery of new agents and measures for the prevention and treatment of such diseases as diphtheria, typhoid fever, yellow fever, bubonic plague, etc., have created such a popular prejudice against this beneficial work that it is with the greatest difficulty that the passage of restrictive laws are prevented. Every one who has ever studied the subject in an unprejudiced manner knows that many of the most useful and beneficent discoveries that have ever blessed humanity have been the direct result of these experimental investigations on living animals, and they cannot fail to see that the great publicity given to the loud vaporings and maudlin sentimentality of the antivivisectionists is a serious menace to the public health, besides interfering with scientific progress.

The large amount of space given by the newspapers to osteopaths, Christian scientists, and all kinds of blatant medical fakirs and vampires, is detrimental to sanitary science and public health, because it is largely through advertising that the exaggerated or false claims of these pretenders are forced upon the people. Many a man and woman has been duped, and themselves, as well as their children, made to suffer, through ignorance or cruelty because they believed the advertisements in their newspapers and were thus induced to entrust the health of themselves and their families to the care of these so-called "healers."

Had these same people come to them without the endorsement of a paper or magazine in whose honesty of purpose and integrity they had confidence, they would have laughed at them for their pains.

Truth, honesty, and virtue, and obedience to the laws of man, Nature and God, are the fundamental principles and crowning characteristics of a noble manhood and womanhood. I shall define crime, vice and sin as follows: Crime is a violation of the laws of legitimately organized society; vice is a violation of the laws of Nature, and sin is a violation of the laws of God. Any cause, influence, or instrumentality which weakens man's love and respect for truth, honesty and virtue, or lessens his obedience to human, natural and Divine laws, to that extent impairs the grandeur and nobility of his character, and lessens his influence toward society.

Taking these fundamental principles as a criterion by which to judge, let us see what influence quack advertisements exert on public morals. A systematic exaggeration and often misrepresentation permeates public advertising in every business, profession and calling of life. But while this is true of all vocations, nowhere is it so fraught with danger to the health and morals of the people as in connection with the exploitation of remedies and agencies designed for the cure or alleviation of the many physical and mental ailments to which the human race is subject. "A little learning is a dangerous thing." "Drink deep, or taste not the Pierian spring" is an injunction which would be of immense benefit to the great majority of people, if they would but apply it to the management of their physical ills, about which they are profoundly ignorant. Even eminent ministers, judges, and politicians, who may be very learned in their own particular callings, in most cases exhibit gross ignorance and crass credulity when they attempt to pass judgment on medical subjects. This is very unfortunate for the people, because, were it not for the fostering help and assistance of these eminent patrons, many of the humbugs and harpies who are now preying on society would pass into "innocuous desuetude," and die of inanition.

If a half truth is the worst kind of error, what must we think of the patent medicine advertisements, which with all the arts of the modern advertiser, try to delude the public into believing (and often do it, too) that their grain of truth mixed with bushels of the chaff of error is all pure seed and will germinate and yield a most bountiful and beneficent harvest? What a shock must the poor deluded victim experience when, instead of the rich and bountiful feast he was promised, he receives but a single bite. How must his regard for truth and honesty be affected by such wonderful results!

How beautiful his simplicity, faith and confidence in the truth and honesty of mankind *before* investing in the much-lauded *sure cure* for consumption, cancer, epilepsy, or some other incurable disease! How shattered all his aspirations *after* he has seen these vaunted pretensions, like apples of Sodom, fall to ashes in his hands! Surely, he must conclude that the standard of honesty and truth which permits the pious minister, the learned judge, or the brilliant and versatile politician to praise and recommend the nostrums by which he was deceived and defrauded, ought to be good enough for him, and he henceforth continues life on a lower moral plane. But, while exaggerated and lying advertisements are slowly but surely sapping the foundations of truth and honesty, a thousand times more harm is being done by means of an insidious and deadly virus with which they are poisoning the very foundations of virtue, and swelling the deadly stream of vice, crime and sin! Take up almost any of our great dailies, and what will you find? In one column you may read the flowery, rhetorical outburst of an eloquent divine as he descants on the purity of the press, and nearby the fervid appeal of the conscienceless fakir who no less eloquently recounts the virtues of his specific for "lost manhood." On one page may be found a dissertation on the home and its sanctity, the sacredness of human life, the proper education of children, and the inculcation of correct moral and ethical principles, while on the next you will see a glowing eulogy on the effectiveness of "Mr.——'s" fakir "tansy pills, as a "sure cure for ladies in distress." Carried away by the tide of great achievements, you will meet in another column the blazing and much pictured "ad" of "Dr. Cure-em-all," who

positively guarantees to cure syphilis and all blood diseases, and remove to the last dregs the results of youthful indiscretions. Here we learn how the worn-out old debauché may be restored to his pristine vigor, and be sent on his way rejoicing, perchance to bring into the world a stainless progeny in his old age; how the ills and satiety of the ancient leader of the *fast set* may be removed, and she be re-habilitated in the charms and beauty of youth and the roseate dreams of twenty years ago return in all their glory.

Is it any wonder, then, that, with such claims and promises as these daily brought before his eyes, the youth is encouraged to plunge into excesses that he would have avoided had he been plainly and honestly told that every violated law of Nature would surely be punished with unerring certainty, and that instead of the results of his profligacy and vice being easily, pleasantly and safely eradicated, they would be transmitted to enervate and curse his children for generations in the future? Would he be so reckless and profligate in "sowing his wild oats" if he felt assured that his condition would, in a large percentage of cases, consign a loving, trusting wife to a life of chronic invalidism or an untimely grave? On the other hand, would the young girl who is strongly tempted by the impulses and environments of youth be so likely to yield to temptation and abandon the path of virtue, had not the siren and delusive song of the advertisement, ever before her eyes, impressed on her mind that "——'s tansy pills" were an unfailing safeguard and a sure anchor of hope in the hour of dire necessity? If she felt that motherhood would probably be the penalty of yielding to passion, there would be a strong restraining influence to keep her virtuous. *"Decensus averno facile est."*

"Vice is a monster of so frightful mien,
As to be hated needs but be seen,
But seen too oft, familiar with her face,
We first endure, then pity, then embrace."

These words of the poet very truthfully and vividly portray the influence that may be exerted by the vile, erotic and depraving advertisements which are ever before the eyes of the young, and the condition of those who, having abandoned the paths of truth and virtue, are rapidly whirled along towards the vortex of physical and moral destruction.

First high, noble and Christian sentiments are disregarded and become obtunded; then yielding to the influences of the insidious and fatal virus, minor indiscretions are committed; later vice, istead of being a monster of frightful mien, seen through the mists of a perverted mind and unrestrained passions, becomes a goddess arrayed in splendor and glory, and is gladly clasped to the bosom, and finally, the dim specter murder, in the form of the abortionist, becomes a welcome refuge to the unhappy victim who conceals the foul, cowardly and unnatural crime, and even attempts to excuse its commission.

While some may think this indictment is too severe, I am convinced that no one conversant with the facts will deny the truthfulness of the picture. That criminal abortion is disgracefully prevalent, every physician only too well knows; that it is a most serious crime, being no more or no less than plain murder, as viewed from a biological standpoint at least, all right thinking persons will admit; that it is leaving a broad trail of physical and moral death and devastation, and is a potent cause of degeneration in our people, is very well known; still with all these facts plainly before us the newspapers are permitted continually to publish their vile suggestions and incentives to this horrible crime.

In conclusion, I desire to present the following summary:

1. The great life-saving discoveries have been made by quiet, unobtrusive men.

2. Quacks and charlatans have never made any great discoveries in sanitary science, but, on the other hand, have always opposed scientific progress and investigation.

3. Quackery flourishes best in an atmosphere of ignorance, credulity, and pseudo-science, and is promulgated by boastful, arrogant pretensions, and public advertising.

4. Antivaccinationists, antivivisectionists, Christian scientists, *et id omne genus,* by opposing preventive sanitary measures and scientific investigations, facilitate the spread of contagious and infectious diseases, oppose the stamping out of diseases already established and impede investigations as to the causation, prophylaxis and cure of disease.

5. The newspapers, which derive a large part of their revenue from advertising, nearly always espouse the cause of the so-called commercial interests, regardless of the fact whether they are supported by truth and justice, or are opposed to the best interests of the public. This is well illustrated by the recent occurrence of bubonic plague in San Francisco.

6. The boastful pretensions and misrepresentations of quack advertisements (patent medicines) lower the public regard for truth and fair dealing and encourage falsehood and duplicity.

7. The bold and shameless introduction of advertisements, calling attention to and suggesting vile, immoral and even criminal acts, debases and demoralizes the young, and leads to disease, crime and degeneration.

MEDICAL PROGRESS.

Scarlatinal Nephritis.—The anatomical changes in the kidneys during the first week of scarlatinal nephritis consist in a circumscribed or more diffuse cellular infiltration. In the second week there is besides this degeneration of the epithelial cells of the straight and convoluted tubules with occasional embolic foci of necrosis. It is only in the third week, according to A. BABINSKY (*Klin. therap. Woch.,* Oct. 27, 1901), that marked changes are noted in the Malpighian capsules and glomeruli. The im-

portant clinical symptoms are: (1) Fever; this may still be due to the scarlatina or one of its complications. Sometimes it is entirely absent and even fatal uremia may occur without any rise. In most cases, however, there is a gradual or a more sudden rise up to 39 or 39.5° C. The most dangerous forms are those with highest fever. Finally, there is a group of cases in which every exacerbation of the nephritis is marked by a new rise. (2) Pulse; generally there is no definite relationship between this and the fever. The wiry condition of the pulse in uremia is peculiar. (3) Amount of urine; in typical cases this is diminished, yet there may be normal quantities of normal specific gravity voided and anuria with a fatal issue may set in suddenly; or there may be polyuria up to 2,000 c.c. in children from six to eight years. (4) Foreign elements in the urine; cases with large amounts of albumen are the most dangerous; when the urine contains hemoglobin and has a dirty, coffee-brown color, the outlook is serious, yet cases with over 4 pro mill. albumen have been cured. (5) Hydrops; in its mildest form this manifests itself in edema of the eyelids. More marked edemas of the skin and effusions into the serous membranes considerably influence the prognosis and are apt to be complicated with bronchitis and pneumonia. Only in cases which come to treatment during the first five days can prophylactic measures be taken. (6) Uremia; with this there may be arhythmia and a wiry pulse, delirium, crying spells, aphasia and singultus. The amount of urine is subject to considerable variation; there may be anuria or polyuria. Very often the mildest cases are followed by the severest attacks of uremia, in most cases, however, the outlook is fair. Of 88 cases of nephritis under observation the author lost 11, and of these 3 were complicated by other disorders. In 18, however, a chronic albuminuria remained, which in 5 developed later into chronic nephritis. The most careful prophylaxis and most painstaking therapy are unable to prevent the appearance of nephritis, but will do much to ward off the hydrops, uremia and subsequent chronic nephritis. The patients must remain in bed four weeks; during the first two only milk is to be given and during the last two a solely vegetable diet. It is best not to give any drugs at all and only to administer tannic acid in prolonged albuminuria or hematuria. Diuretics are only to be employed in the form of alkaline waters. The uremia is combated by means of venesection, sweating, chloral and chloroform. For chronic albuminuria, change of climate is indicated.

Catheter Fever.—The importance of absolute asepsis in the introduction of instruments into the bladder to ward off catheter fever is ably discussed by C. POSNER (*Deutsche Klinik.*, Vol. 10, p. 34). The hands demand an attention equal to that for a major operation and the instruments must be absolute germ-free—a condition which is easily obtained with those of metal, but is more difficult with the elastic catheters where disinfection in formalin-vapor or in streaming steam is suitable. The cleansing of the meatus is safely accomplished by means of soap and sublimate and for the urethra a weak solution of boric acid is serviceable, though less thorough, so that it is well to follow the introduction of instruments by irrigation with a 1:1000 silver-nitrate solution. For the development of fever, which in the majority of cases depends upon an infection, stagnation of the bladder-contents, which allows the germs to gain a good foothold, and often a loss of continuity, which permits the bacteria or their toxins to enter the system, are necessary. The mildest forms of infection do not show themselves by fever, but by a mere turbidity of the urine, due to pus cells, which goes to show that the deeper parts of the entire urinary system possess means of protection against the overflooding of the system with germs. This protection is least in the posterior urethra, owing to its connection with the prostate, which is rich in lymphatics. The loss of continuity is generally a direct result of mechanical injury; often, however, the sudden relief on drawing off the urine causes rupture of the vessels and thus a ready means of entrance for bacteria. But few cases depend upon absorption of toxins alone and here also an injured mucous membrane is necessary, since the healthy mucosa of bladder and urethra do not absorb. The symptoms of catheter fever resemble the invasion of any other fever; where absorption is prolonged a sort of intoxication manifested by dry tongue, small and irregular pulse, general malaise and, in the severest cases, subnormal temperature occur. The two chief internal antiseptics which have yielded good service in the treatment of catheter fever are quinine and urotropine. The latter is especially valuable in central vesical paralysis. The question of local treatment is much more difficult to answer and must be decided for each individual case. Where there is a fresh wound and the urine must constantly pass over raw surfaces, a permanent catheter often is excellent. In all cases free action of the skin, kidneys and bowels is to be secured.

Painful Micturition in Gonorrhea.—

℞	Sodii salicylat....	gm. 8.0	(℥ij)
	Ext. bellad.....	0.3	(gr.v)
	Tinct. aurantii....	5.0	(♏LXXV)
	Aquæ.....q.s. ad	180.0	(℥vi)

M. Sig. A dessertspoonful every two or three hours.

—E. GERBERT (*Bulletin de Thérapeutique.*)

Tuberculous Pericarditis.—In a case of this kind reported by DEMPSEY (*Dublin Jour. of Med. Sci.*, Oct., 1901), the fifth left intercostal space was incised under beta-eucaine, the internal mammary vessels tied, the pleura pushed aside, the pericardium incised, and about 1,500 c.c. (50 oz.) of clear fluid evacuated. This was subsequently found by culture and by microscopical examination to contain tubercle. The patient felt much

relieved after the operation, but suddenly died convexity of the aortic arch was thought to be pletely caseated state and situated close to the the same evening. A lymphatic gland in a comthe origin of the pericardial affection. The question arises as to the rôle played by the rapid evacuation of fluid in the sudden death.

Epilepsy.—"A really good prognosis can seldom be given," writes SIR WILLIAM GOWERS, "unless all the attacks are averted by the bromides in moderate doses, such as fifty or sixty grains a day." His treatment is by potassium bromide, no advantage of other bromides over this having been noted. In 1899, at the National Hospital for Paralyzed and Epileptic, there were used 3,664 pounds of potassium bromide, 313 pounds of sodium bromide, and 123 pounds of all other bromides. The bromide acne eruption may be entirely prevented by the addition of arsenic. Borax, zinc and a few other drugs are useful, and belladonna and digitalis may increase the effect of the bromide. Nitroglycerin does not influence the attacks, and opium may be distinctly dangerous.—"Epilepsy and Other Chronic Convulsive Diseases."

Physostigmine in the Treatment of Intestinal Atony.—The action of physostigmin on the intestinal tract has recently been tested by Traversa, an experimenter upon animals. Popular as this drug is in veterinary practice, the medical profession remains indifferent to its attractions. C. VON NOORDEN (*Berl. klin. Woch.*, Oct. 21, 1901) describes the clinical uses of Calabar bean and its alkaloid. In cases of extreme and obstinate tympany complete symptomatic relief followed the administration of $^1/_{100}$-grain doses of physostigmine. The drug was a symptomatic success even in cases of typhoid fever, a disease in which tympany may be exceedingly troublesome. Physostigmine salicylate is so powerful a drug that it is best to begin its use with very small doses. In case of accidental poisoning it is well to remember that the toxic effects of physostigmine are opposed by atropine.

Phantom Tumors of the Abdomen.—Irregular contractions of abdominal muscles or of parts of such muscles are perplexing and may easily be mistaken for abdominal tumors. MAX EINHORN (*Berl. klin. Woch.*, Oct. 28, 1901) points out that phantom tumors may be due also to prolapse of the left lobe of the liver, to exposure of the abdominal aorta, to local hypertrophies of muscular tissue, and to adhesions about the lesser curvature of the stomach. If the left lobe of the liver be prolapsed the pseudotumor is found in the median line close to the ensiform process; just above the resistant mass, in the region normally yielding hepatic dulness, an unusually tympanitic percussion note is obtained. Where the aorta forms the suspected mass, the latter is found deep in the peritoneal cavity, close to the spine; it is cylindrical in shape and pulsates vigorously. Such a tumor is frequently mistaken for an aneurism. A mass of muscular origin is superficial and lies to the left or right of the linea alba. The surface is not spherical, as in the case of prolapsed liver, but rather flat, although laterally a slightly curved surface may be palpated. In general phantom tumors present smooth rather than nodular surfaces. Palpation at various times yields different results; at times nothing can be felt. A marked grade of enteroptosis is a common accompaniment. A history of many years is usually given and helps to exclude malignant growth. Phantom tumors may occur at any age, and are often associated with a poorly-nourished condition of very long standing. Rapid loss of weight does not of necessity indicate a malignant growth, as is shown by the clinical histories which form a part of Dr. Einhorn's article. The rational treatment of phantom tumor, according to this author, consists chiefly of moral suasion and good nourishment.

Diagnosis of Inflammatory Exudates in the Iliac Fossa.—The extreme importance of leucocyte-counts in cases of purulent exudation is emphasized by CURSCHMANN (*Fortschritte d. Med.*, Oct. 22, 1901). Physical diagnosis, even with the aid of aspiration, may yield only negative results in these cases. But if other diseases causing marked hyperleucocytosis, such as pneumonia, can be excluded, then a leucocyte-count of over 20,000 indicates pus with practical certainty. In cases of non-purulent inflammation there may be a hyperleucytosis at the very beginning, but this rapidly disappears and as a rule is not even temporarily present. If a leucocyte-count of over 25,000 be made it probably means pus even in a very early case. Leucocytosis, according to Curschmann, is of greater diagnostic value than the temperature curve.

Surgery of Pulmonary Abscess, Gangrene and Bronchiectasis following Pneumonia.—The prognosis of abscess and gangrene following pneumonia, medically treated, is not very favorable. Many cases of both varieties can be successfully treated by pneumonotomy. D. N. EISENDRATH (*Phila. Med. Jour.*, Nov. 9, 1901) has gathered statistics showing a marked increase in the percentage of recoveries, especially in cases reportd within the last five years, over that of the preceding decade. One of the greatest difficulties is exact localization of the focus. The prognosis for chronic cases is not so favorable. The patients are usually operated on when in an emaciated condition, and the walls of the cavity are often rigid, so that they do not contract well after being drained; the free communication of a bronchus with such cavities is also a barrier. Better results seem to be obtained in these cases when the affected portion of lung is excised.

Typhoid Bacillus in Urine.—During the past twenty years various observers have noted the excretion of the typhoid bacillus in the urine and their collected figures show this condition to be present in about thirty per cent. of all cases examined. These statistics are given by M.

SCHUER (*Deutsch. med. Woch.*, Oct. 31, 1901) and to them he adds his own observations in a series of twenty-two cases, with a percentage of 22.7. His method was to take 5 c.c. of morning urine collected in a sterile vessel, mixed with a 15-per-cent. gelatin solution and spread out over the usual culture plate. After five days' incubation at 22° C. the resultant cultures were subjected to the usual confirmatory tests. He has found that severe cases of typhoid, with an albuminuria present, are more apt to show the bacilli in the urine, although milder cases do not form an exception, and also that, although found before defervescence, they are most frequent and in larger numbers during convalescence, and may be demonstrated for many weeks. It is therefore advisable to disinfect thoroughly all urine of typhoid patients and also the bath-water in which urine is often voided.

Bacteriology of Typhoid Pneumonia.—The presence of typhoid bacilli in the sputum of typhoid patients, who during the course of this disease have developed a pneumonic condition, has been demonstrated during the past few years by a number of observers, and it is now generally conceded that in a fair percentage of cases in which pneumonia complicates typhoid fever the typhoid bacillus is the specific cause of the lung lesion. The possibility that the typhoid bacillus may primarily gain entrance into the lungs and produce a pneumonic condition previous to the general infection of the body has also been admitted, but very few instances of such a sequence have been actually demonstrated. In this connection A. DIEUDONNE (*C'tlblt. f. Bak.*, Oct. 15, 1901) reports an interesting case. The patient was suddenly taken ill with a chill followed by fever. Percussion was negative, but auscultation gave roughened breathing and râles over the lower lobe of the right lung. The expectoration was "rusty." The following day physical signs showed consolidation of the lower right lobe. At this time the spleen was not enlarged. On the eleventh day characteristic rose spots appeared and the Widal reaction was positive. Typhoid bacilli were at this time recovered from the sputum. Later they were obtained in pure culture from the urine. Coincident with the occurrence of the general infection the spleen became enlarged. Recovery followed, the specific bacilli remaining in the sputum for seven weeks after convalescence. From prophylactic standpoints the recognition of this class of cases is of great importance, as hitherto the presence of typhoid bacilli in the sputum of such has not been fully appreciated and they have formed fruitful sources for the dissemination of these organisms.

The Clinical Significance of Atrophy of the Uterus During Lactation.—Atrophy of the uterus during lactation is largely physiological and is known to occur in most but not all nursing women. The degeneration of uterine muscle fibers proceeds more rapidly than the opposing process of regeneration and a normal shrinking of the organ results. L. FRAENKEL (*Arch. f. Gyn.*, B. 62, H. 7) studied 95 cases clinically and found that the atrophic tendency, beginning usually during the third month of lactation, ceases spontaneously when nursing is discontinued or even before. Amenorrhea occurring in a woman who has nursed her child longer than nine months is due more frequently to a new pregnancy than to atrophy of the uterus secondary to lactation. Gynecological symptoms other than amenorrhea occurring during lactation are in most instances associated with a uterus of at least normal size and hence should not be too readily attributed to uterine atrophy. As a rule it is wise not to order lactation discontinued when such symptoms occur between the third and seventh month of lactation, unless the symptoms are very marked indeed. Fraenkel does not consider the existence of a moderate grade of anemia an indication for putting an end to nursing. A good plan is to re-examine the uterus at intervals of four weeks in order to ascertain whether or not a progressive atrophy is taking place. Progressive atrophy being definitely established, lactation should cease at once; on the other hand, if the uterus be found to increase in size lactation may be permitted until the twelfth month. The writer concludes that pathological atrophy of the uterus is for the most part a result of excessive prolongation of lactation, although such atrophy is only found in a very small fraction of cases where nursing is overdone. It is worth while to guard against superlactation, inasmuch as the uterine atrophy resulting therefrom is not easy to overcome; the prognosis remains doubtful even when rational treatment is promptly begun.

Meningitis Due to Tubercle Toxins.—The action of bacterial toxins upon the tissues of the nervous system is of interest in relation to the pathogenesis of the nervous manifestations present in infectious conditions. ARMAND-DELILLE (*Comptes Soc. Biol.*, Oct. 25, 1901) has investigated the action of tubercle toxins upon nervous tissues. He employed the ethereal extract of tubercle bacilli. He inoculated dogs with this substance by lumbar puncture; some in the subarachnoid and others in the epidural space. These animals developed a paralysis beginning on the fifteenth day following inoculation. Upon autopsy those inoculated in the subarachnoid space showed a leptomeningitis, while a pachymeningitis was present in those which had been inoculated epidurally. These lesions extended from the dorsal to the sacral region. This work shows that the inoculation of tubercle toxins into the rachidian meninges is followed by plastic inflammation similar in symptomatology and pathology to that which supervenes in the course of certain cases of tuberculosis in the human subject.

Protargol in the Treatment of Gonorrhea.—As a test of the efficiency of local treatment of gonorrhea by means of protargol, KESJAKOFF (*Wiener klin. Rundschau*, Nov. 3, 1901) has tabulated a series of cases showing the time required for the disappearance of the gonococcus from the urethral discharge. In 12 per cent. of

his cases this occurred after a week; in 18 per cent. of the cases observed two weeks were required; in 30 per cent., three weeks; 20 per cent., four weeks; 14 per cent., five weeks; 6 per cent., six weeks. Kesjakoff's observations agree substantially with those of Meyer and Benario, Straus, Finger, and Ruggles.

Action of Emetine.—The action of emetine on the blood-vessels is of interest in relation to the effect of this drug upon congestive and inflammatory conditions. M. E. MAUREL (*Comptes Soc. Biol.*, Oct. 25, 1901) has observed the results produced on the blood-vessels of the intradigital tissues of frogs by the inoculation of the hydrochlorate of emetine. His work shows that this substance is a powerful vasoconstrictor, increasing the normal circulation and reëstablishing a circulation which has become arrested. In the congestive zone surrounding a wound this action overcomes vasodilation and markedly reduces the degree of inflammation. This de-congestive action, so to speak, explains the excellent results which have been obtained clinically by the employment of ipecac in affections accompanied by congestion, notably in the digestive and respiratory systems.

Anterolateral Colpoceliotomy.—The advantages of the operation of anterolateral colpoceliotomy are stated by A. DUHRSSEN (*Berl. klin. Woch.*, Nov. 4, 1901), who proposed this operation some months ago. Dührssen shows that the division of the broad ligament does not interfere with the nourishment of the uterus, which is amply supplied with blood by the uterine and ovarian arteries of the opposite side. The indications for the division of the broad ligament are stated as follows: (1) The first stage of the operation, *i. e.*, the division of the ligamentum cardinale only, is indicated when a large ovarian abscess or a pyosalpinx is present which offers the prospect of cure through wide opening and drainage; (2) the complete division of the broad ligament is desirable when fixation of the uterus has resulted from chronic parametritis or from extensive adhesions between the adnexa and the pelvic wall. The division of the broad ligament is further recommended for purposes of drainage in cases of infectious purulent peritonitis; to facilitate effective tamponing in cases of hemorrhage from the surface of the uterus, from torn adhesions or from the ligamentum infundibulopelvicum; for the purpose of repair by suture and drainage in cases of rupture of the uterus. Should the uterus and the adnexa prove to be hopelessly diseased, the operator can proceed to total extirpation without loss of time due to the preliminary division of one broad ligament. While partial ligation of the broad ligament has long been practised in the treatment of parametritis, intraperitoneal abscess and diseased adnexa, Dührssen claims to be the first to propose complete division of the ligament in combination with anterolateral colpoceliotomy.

Origin of Polynuclearneutrophilic Leucocytes.—The origin of the polynuclearneutrophilic leucocytes has been the subject of much discussion. Ouskow regards them as derivatives of the lymphocytes, while Ehrlich maintains that they come from the myelocytes and are produced in the red bone-marrow. DOMINICI (*Comptes Soc. Biol.*, Oct. 25, 1901) holds that in the vast majority of cases they are descendants of the myelocytes, but claims that these are of lymphocyte origin. Thus the polynuclearneutrophilic is the last link in a chain the first link of which is the lymphocyte and the intermediate links myelocytes. The place of origin of the polynuclearneutrophilics is not exclusively the red bone-marrow, but they may also be formed in the lymph-glands and spleen. It would at first appear that this conception is merely a combination of the theories of Ouskow and Ehrlich; such is not, however, the case, as the first observer denies entirely the myelocyte origin while the latter affirms that they never normally come from lymphocytes. It is virtually an amplification of Ouskow's theory. Dominici admits that under certain conditions of abnormal myelogenous tissue a portion of the polynuclearneutrophilics may be formed directly from the lymphocytes without intermediate myelocyte formation.

Hot-Air Douche.—By means of the hot-air douche a marked local hyperemia can be produced on any part of the surface of the body and the cutaneous secretion can be increased; cell-activity is enhanced under the influence of hot-air currents and the output of products of metabolism increased. Assuming that neuralgias are ordinarily due to disturbances of circulation involving imperfect removal of the metabolic products of nerve-cell activity, B. BELZER (*Berl. klin. Woch.*, Nov. 4, 1901) points out the rational therapeutic relation of the hot-air douche to these cases. The author presents a series of clinical records showing the value of the hot-air douche (Frey's method) in cases of neuritis, muscular rheumatism, neuralgia, acute gout, angina pectoris, scleroderma, and chronic articular rheumatism.

Surgical Antisepsis by Potassium Permanganate and Hydrogen Peroxide.—If a solution of potassium permanganate is applied to a wound the tissues and organic substances present give up a portion of the oxygen which enters into their chemical composition and manganese dioxide is formed. This is of a brown color. When hydrogen peroxide is similarly used it gives up a part of its oxygen with an intensity which greatly varies according to the composition of the organic matter present. AUCHE and TRIBONDEAU (*Comptes Soc. Biol.*, Oct. 25, 1901) advocate for surgical use the combined employment of these agents and claim that by such a more powerful bactericidal action is produced than when either is separately used. The permanganate is first applied and manganese dioxide formed. If now the peroxide is employed a chemical reaction is set up in which the peroxide is reduced as before and in addition the MnO_2 is changed to MnO. Thus a larger amount of nascent oxygen

is set free than when either substance is singly employed. As the bactericidal action of these substances is due to the amount of disengaged nascent oxygen and the intensity of the accompanying chemical process, it is readily seen that their combined employment is more efficient than their isolated use. Experimental observations have fully confirmed the theoretical deductions.

Chronic Non-Gonorrheal Urethritis.—It is customary to describe as chronic gonorrheal urethritis cases which last for years with occasional mild exacerbations, although gonococci may be sought for in vain in the urethral discharge. L. WAELSCH (*Prager med. Woch.*, Oct. 24, 1901) contends that such cases are not properly classified as gonorrheal provided due search for gonococci is made without success. In a case cited by this author more than fifty examinations of the urethral discharge were made, and the few bacilli and diplococci found were in every instance readily differentiated from gonococci. The clinical picture of chronic non-gonorrheal urethritis presents the following characteristics: Long incubation period; absence of an initial acute stage or of very acute exacerbations; mild subjective and objective symptoms; absence of gonococci throughout the disease; bad prognosis for cure. In these cases Waelsch found that he could not effect a cure by any of the modern methods of treatment. Germicides, astringents and local mechanical treatment were as unsatisfactory as were medicines given by mouth.

The True and False Tubercle Bacillus.—Until quite recently it has been thought that the peculiar staining reactions and morphology of the bacillus tuberculosis were sufficient to differentiate it from all other micro-organisms. Although the so-called bacillus of syphilis, smegma bacillus and lepra bacillus possess the same morphology as the tubercle bacillus, the fact that the first is decolorized by sulphuric acid and the second by alcohol, while the third stains readily with the ordinary dyes, renders the differentiation between these organisms and the tubercle bacillus absolute. During the last two or three years it has been discovered that certain bacilli found often on grass, in milk, in butter and in wine present staining reactions and morphology practically identical with those of the bacillus tuberculosis. For this reason it has been thought that the time-honored methods of identifying tubercle bacilli by stain and morphology are about to fall into disrepute and become obsolete. A. MOELLER (*C'tlblt. f. Bak.*, Oct. 25, 1901) has made a comparative study of these so-called pseudo and the genuine tubercle bacilli. He shows that while these pseudo-bacilli possess considerable variation in their morphology, yet the same applies to the tubercle bacillus and does not constitute a differential point of value. When grown upon artificial culture media these pseudo-bacilli multiply abundantly in the presence of other organisms, while the tubercle bacilli are grown only with great difficulty, even in pure culture, under the usual artificial conditions. Furthermore, pseudo-bacilli thrive abundantly at room temperature and the bacillus tuberculosis grows only at the incubator temperature. The pathogenesis of pseudo and genuine bacilli for research animals possesses many similarities. The lesions produced by the former are, however, largely exudative in character with a marked tendency to abscess formation, while the production of proliferative changes is characteristic of the latter. As the pseudo-organisms have been repeatedly found in the throats and mouths of human beings, it is evident that great care must be exercised in differentiating them from genuine tubercle bacilli.

X-Ray as a Depilatory.—The latest method of depilation before the profession is that effected by the X-rays. DAVID WALSH (*Lancet*, Nov. 2, 1901) used this method of removing superfluous hairs after July, 1897, when it was found that "focus-tube dermatitis" resulted in temporary loss of hair from the surface of the skin. Exposure to the X-ray made from ten to fifteen minutes with the tube a few inches from the skin causes the hair to fall out in about ten days. Still this does not destroy the bulb of the hair, and in two or three months the growth has returned. The writer has practised very successfully a combination of the X-ray and electrolysis, which is recommended in preference to electrolysis alone as a permanent cure for this condition. The region of the skin which is to be depilatated is exposed to the X-ray bulb as just described and at the end of ten days the electrolysis needle is placed in the pit made by the removed hair and allowed to remain there for twenty or thirty seconds. This method means that a large number of electrolytic punctures must be made in a small area. Sometimes a second exposure to the focus tube has to be made before the hairs become loosened. The author holds that this combined method shortens the process of depilation, but, like pure electrolysis, it should not be undertaken unless the patient has enough resolution and patience to undergo the requisite treatment.

Relation of Trauma to Tumors and Inflammation.—Just exactly what causal relationship exists between injury and the development of tumors and inflammation has always been a mooted question. B. JORDAN (*Münch. med. Woch.*, Oct. 29, 1901) has investigated the literature very extensively and finds that in not one single case of carcinoma can trauma be considered the real inciting cause, although to a superficial observer the history might prove conclusive. The evidences are somewhat stronger with sarcomata, and it is especially in cases of growths which develop about the extremities and at the site of callus from previous fractures that a previous injury may be held responsible. It is also probable that the various benign tumors, especially the bony one, are occasionally of traumatic origin. In order to have the relationship undoubtedly established the original injury must be observed and accurately localized by a physician; the tumor must correspond exactly to the

site of the injury; the time between the trauma and the appearance of the tumor must agree with the usual time of development of the latter, and, lastly, there must be evidence that tumor-development was not already in progress independent of the injury. Concerning the first statement, it is well known that the patient's own remarks are notoriously untrustworthy. With reference to the third, it is impossible to determine a definite time within which a tumor must develop, since this is apt to vary within very wide limits. As far as tuberculosis and acute osteomyelitis are concerned, there is little doubt that a blow or a fall may so diminish the vitality of the part that germs already circulating in the blood will readily settle there.

Remarks on Infantile Scurvy.—In most of these cases the diagnosis is not hard to make, but where the classical symptoms are wanting or only one is present it may be safe to give some definite answer if asked for a diagnosis, says J. McCAW (*Brit. Med. Jour.*, Nov. 2, 1901). The writer refers to a case which was brought to him; the child had been fed upon condensed milk and patent cereals for ten months. The baby had vomited blood and there was a slight diarrhea in which there was altered blood. There was complete absence of other symptoms. Orange-juice, one dram every two hours; small quantities of whey and cream, at varying intervals, with a teaspoonful of beef-juice every four hours, comprised the treatment. At the end of one week the whole condition was changed and the child soon recovered completely. Fowler's solution was given during the rest of the treatment.

Albuminuria.—Many persons are still fit subjects for life insurance despite the presence of albumin in their urine, according to B. J. STOKVIS (*Klin. therap. Woch.*, Nov. 3, 1901). In order to separate the truly renal from the extra-renal cases, a microscopical examination is essential, yet even the presence of casts does not absolutely prove a true kidney lesion. In this, the more permanent character of the albuminuria, the involvement of other organs and the presence of a number of other symptoms are to be looked for to assure the diagnosis.

Suprarenal Gland in Ophthalmology.—Preparations of the adrenal gland are very valuable in various affections of the eye, according to JOHN H. BOWN (*Brit. Med. Jour.*, Nov. 2, 1901). The writer prefers the suprarenal of the pig, as preparations of this seem to be more staple. It is used in the proportion of twelve grains to the dram. Stronger solutions may be used with impunity. In cases of photophobia with hyperemic eyelids and mucopurulent discharge, complete recovery will take place in four days. In hay asthma an occasional drop in the eye, in combination with a nasal spray of the same drug, the relief surpassed that obtained from cocaine. The eye-strain from hypermetropia is greatly alleviated and the patient may continue the use of his eyes without discomfort. One case of idiopathic hemorrhage into the vitreous, of a recurrent character, occurring in both eyes, was treated with the suprarenal extract and the oozing seemed to stop remarkably sharply.

Tests for Butyric and Acetic Acids in Stomach Contents.—These acids when present to any degree in the stomach contents mean fermentation, and hence their detection is of great importance. The tests for these acids have previously been very complicated and impracticable. M. I. KNAPP (*Med. Rec.*, Nov. 16, 1901) describes a very simple method of detecting these acids. One c.c. of the filtered stomach contents is extracted with about five c.c. of ether by shaking and allowing to stand for a few minutes. One drop of a ten-per-cent. solution of perchloride of iron is added to two c.c. of water. This gives it a faint yellowish tinge. A part of the extract is then floated on the top of the iron solution. If lactic acid is present a sulphur yellow ring appears; if butyric acid, an orange color, and if acetic acid is present a rusty-colored line appears between the two fluids.

Diseases of Uterine Appendages.—These are usually due to extension of morbid conditions elsewhere, writes A. P. CLARKE (*Amer. Jour. of Obstetrics*, Nov., 1901), and can often be cured without radical operation. A catarrhal or gonorrheal endometritis may set up a salpingitis or ovaritis, and all these affections may often be cured by dilatation and curettement of the uterus followed by local treatment. Applications of ichthyol-glycerin, repeated hot douches, soothing suppositories, counterirritants, may all be of use. Circumscribed hyperemia or hematoma may take place in the ovary from sudden suppression of the menstrual flow, and scarcely requires any treatment except rest and the avoidance of excitement. Oophoritis generally is connected with the puerperal state; it may result from laceration or septic infection of the cervix, or from large abscesses of the vaginal wall or the pelvic connective tissue. Affections of the cecum, appendix, rectum and anus appear as causative factors often enough to demand careful examination of these parts. Diarrhea and dysentery have been accompanied by much ovarian pain at menstruation, which disappeared with the intestinal trouble. Ovaritis is also caused by malposition of the uterus. Tumors of the uterine body, sometimes, are the cause of much hyperemia and flooding at the menstrual period. The ovary may be contused in labor by partial prolapse into the pelvis. Tubo-ovarian cysts, ovarian hydrocele, hydrosalpinx and pyosalpinx are common enough. Gonorrheal or purulent salpingitis is accompanied by adhesions to the surrounding parts, or contraction or closure of the lumen of the tube. This may cause dysmenorrhea and sterility; nevertheless, many cases of salpingitis terminate favorably without operation.

Pathology and Treatment of Migraine.—The lives of many people are so seriously marred by frequent recurrences of severe headaches that successful treatment of this most annoying condition becomes of vital importance to the physi-

cian. The individual attack is usually comparatively short and self-limited, so that various drugs may relieve the distress, but to be able to so change the constitution and habits of the patient that attacks of migraine cease to occur is, indeed, seldom realized. W. H. THOMPSON (*Med. Rec.*, Nov. 16, 1901) believes that too little attention is usually paid to these unfortunate patients, whose lives are often most miserable. Migraine can not be classed among the degenerative nervous diseases, for it is chiefly a malady of youth and of the prime of life, decreasing in old age. There are whole classes of people who seldom if ever are afflicted with it, and these include nearly all those whose occupation calls for physical work in the open air. Clergymen, students, shopgirls, professional men and housewives are especially prone to the disease. The secretion of bile is considered by the author as an important factor in the determination of migraine, and a sedentary life, with an inactive diaphragm, abdominal muscles and a sluggish circulation, certainly tends to obstruct the normal flow of this secretion. Imperfect digestion and chronic constipation naturally result. Many of these products of imperfect digestion are nerve poisons, and it is one of the important liver functions to destroy these gastro-intestinal nerve poisons. Measures must be devised in each case to cause as fully as possible, in accordance with modern civilization, habitual activity of the portal system. All severe cases are chronic dyspeptics with chronic constipation. Five grains of blue pill with a saline in the morning is a weekly prescription to be kept up for months. One to two drams of sodium sulphate with ten grains of sodium salicylate are to be taken in hot water every morning. Before each meal, a pill is prescribed of one-twentieth of a grain of bichromate of potash with three grains of bismuth subcarbonate. After meals intestinal antiseptics, such as naphthol, bismuth or ammonium benzoate, may be given. A good prescription is:

℞ Sod. sulpho. carbol. .gm. 0.30 (gr. v)
Kal. permangan ..... 0.06 (gr. i)
Beta naphthol ..... 0.06 (gr. i)

To be taken after meals and at night. For severe attacks of migraine the fluid extract of ergot in dram-doses, with elix. cinchona in water by stomach or rectum, is perhaps the most certain agent. The patient should lie perfectly still until all pain ceases and the dose may be repeated in an hour or two. Ten grains of lactophenin and two grains of caffeine citrate are also a valuable combination.

Malpositions of the Uterus in Unmarried Women.—A malplaced uterus may sooner or later, writes H. E. HAYD (*Amer. Jour. of Obstetrics*, Nov., 1901), offer an obstruction to the menstrual flow, either on account of the flexion which exists or the congestion, and associated thickening of the lining membrane. Besides dysmenorrhea, such obstruction may be accompanied by severe backache and bearing-down pains, pains in the groins, and reflexes, such as nervous dyspepsia, irritable bladder, hysterical aphonia, fits, clutching at the throat, irritable heart, pain in head or neck, and various visual defects. A rectal examination is often quite sufficient for diagnosis, and young girls should not be permitted to suffer on the score of modesty. A pessary can do very little good in these cases and its introduction is painful. Tampons, electricity or other non-operative measures afford only temporary relief. The author's treatment is to perform dilatation and curettage and the Alexander operation, which does not interfere with subsequent pregnancy.

THERAPEUTIC HINTS.

Acute Alcoholism.—A formula recommended by J. M. Anders is:

℞ Sodii bromidi .....gm. 30.0 (℥i)
Tinct. capsici ..... 4.00 (℥i)
Tinct. digitalis ..... 2.0 (℥ss)
Elix. simplicis ad..... 60.0 (℥ij)

M. Sig.: A teaspoonful every two or three hours in water.

Thrombosis of the Femoral Vein in Typhoid Fever.—This is best treated by elevating the part and keeping it at perfect rest. The following ointment may be applied along the course of the vessel three times daily:

℞ Ung. ichthyol,
Adeps lanæ hydros. aa.. 8.0 (℥ij)
Ung. belladonnæ .....16.0 (℥ss)

After the swelling has subsided an elastic stocking should be worn for a couple of months.—J. M. ANDERS in "Practice of Medicine."

Retroversion of the Womb.—A retroverted womb uncomplicated by disease is treated by M. ROSENWASSER (*Amer. Jour. of Obstetrics*, Nov., 1901) by replacement and the support of a pessary. If complicated by diseased womb or impaired pelvic floor, the pessary should be preceded by a plastic operation. If complicated by aggravated prolapse simultaneous plastic and suspension operations should be done. If the womb is fixed, treat for pelvic inflammation. A suspension operation, in ordinary conditions, should be resorted to only when mechanical support and the plastic operation have failed.

Uterine Fibromyomata.—In the treatment of metrorrhagia accompanying fibroids, H. D. INGRAHAM (*Amer. Jour. of Obstetrics*, Nov., 1901) has tried thyroid extract and desiccated mammary gland without much benefit. Ergot and hydrastis he finds of use and stypticin the best drug of all. The curette may be successful, but is a dangerous remedy. Electricity is safe, but has little value. When pregnancy occurs, with a large, rapidly-growing fibroid situated below the fetus in the pelvis, and nearly filling that cavity, there is nothing to be done but hysterectomy.

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SATURDAY, NOVEMBER 30, 1901.

NEW YORK MEDICAL RECONCILIATION.

AT the regular monthly meeting of the Medical Society of the County of New York, held last Monday evening, a movement looking to the reconciliation of the two medical organizations in New York State and County which at present claim the divided allegiance of New York physicians was happily initiated.

Dr. St. John Roosa proposed and the County Society unanimously adopted at the suggestion of the incoming President of the Society, Dr. Van Fleet, a resolution to the following effect: That a Committee of Five be appointed by the President of the Medical Society of the County of New York to meet and confer with a similar committee to be appointed by the New York County Medical Association in order to arrange the details of harmonious affiliation of the two organizations in County and State.

This resolution, let us hope, will prove the initial step in the reconciliation of elements that have always been a unit in their purposes of benefit for the medical profession, who have been coming ever closer together in recent years, as regards the best methods of accomplishing their common purpose and have been kept apart only by traditional differences with very little basis of real divergence of opinion.

Since the President of the American Medical Association declared last year that the question of the Code was not a vital element in the binding principles of that Association, there has been no good reason for the existence of two separate medical organizations in New York. It was on the question of the Code that the New York Medical Society was cut off from the American Medical Association. Now, that the National Association has come around to New York's way of thinking, it is preposterous further to exclude men who were ahead of their time, but were pioneers for the right.

A united medical profession in this country can accomplish great things. The fact that the profession of the powerful Empire State has been divided against itself has detracted much from all efforts at National legislation. A favorable opportunity seems to be presented now for the repair of the breach in the ranks that has weakened all such efforts. No sacrifice should be spared on either side to succeed in the beneficent purpose. Certainly the New York State Medical Association should be willing to do anything and everything for the reconciliation with the elder sister organization that will after nearly a score of years enable a united medical profession in New York to wield all the influence it should have. It would be easy at the present time to delay for a good while, perhaps, the benefits sure to accrue from reunion. It is to be hoped that no mere technical quibbles or political motives will be allowed to interfere with the good purposes proposed. The medical profession, not of New York State alone, but of the whole country, will watch jealously the proceedings in this matter. They will resent any unworthy or pusillanimous excuses that may be supposed to serve as pretexts to hinder reconciliation. A better time than the opening year of the new century could not be found for so hopeful a movement. May the year not die before we shall be able to state that the preliminaries of reconciliation are arranged, and that the assurance of professional union and strength is at hand.

HONOR TO DR. T. GAILLARD THOMAS.

"No company can be more amiable than that of men of sense, who are doctors," and doubtless a more amiable and more brilliant company of men could not be found than those that dined at Sherry's last week in honor of Dr. Thomas'

seventieth birthday. The three birthday dinners held recently, Dr. Jacobi's Festschrift, the Virchow celebration and this feast of love and reason, indicate the tendency among scientific men to pay tribute to those whom they esteem, by the expression of their good-will and admiration.

Dr. Thomas himself put it succinctly in his remark that the reward for which he had been working for fifty years was the esteem and approbation of his brothers in the profession. Only a physician can realize how single of purpose and high of mind another physician must be to win this universal approbation unmixed with envy or jealousy; and there is doubtless no keener sense of gratification to a man who has been true to his ideals in serving humanity than to feel that his brother practitioners, who know that he was tempted in all points like as they were, hold him honorable and unselfish, as well as a master in their art.

The tangible but impersonal honor of bronze and marble to link one's form and feature with one's name is inspiring to posterity; but, we feel, not so inspiring nor gratifying to the great man himself as is this growing custom of crowning him when ripe in years with garlands of friendship.

PROPHYLAXIS OF VENEREAL DISEASE IN NEW YORK CITY.

THE special Committee of Seven, selected earlier in the present year by the Medical Society of the County of New York to prepare a report on the subject of the prophylaxis of venereal disease in this city, presented the result of their labors at the meeting on November 25th. The report, of which a very complete summary will appear in the next issue of the MEDICAL NEWS, is a model of painstaking effort, of judicious discussions, of suggestive collation of ideas from many sources, and of very practical purposefulness. It reflects great credit on the Committee which have had the matter in charge and especially on the Chairman and Secretary on whom most of the work devolved. The report comes very opportunely, now that the recent change in the political complexion of the city administration makes it possible that medical suggestions on this important subject will be looked to with more care than otherwise would be the case.

With regard to the question of decreasing the dissemination of venereal diseases by direct legal regulation of prostitution the Committee agree that it is out of the question. Not only is the temper of our people very much opposed to what they would inevitably consider compounding vice, but also legal regulation has in the countries where it has been tried proved almost universally a failure. It is much more probable that the laws regulating prostitution will be repealed in the countries where they now exist than that any other countries shall join the movement which many former advocates now admit to be doomed to fail.

With regard to segregation of prostitutes in one part of the city as a means of checking the evil it engenders, moral and physical, the Committee are of opinion that this, too, cannot be accomplished under present conditions. It can scarcely be done without some approach to legal toleration of the evil. This will inevitably seem to be a quasi authorization and will meet with decided opposition from a large class of our people. With regard to domiciliary segregation, however, this question is different. Moral and immoral tenants must not be allowed to occupy the same premises. Above all, families with children must be protected from contact with and contamination by immoral neighbors. For this no special legislation is required. The enforcement in moderation of existing laws will accomplish the purpose very fully. The Tenement House Commission is at present doing excellent work with regard to the most serious features of domiciliary contamination and their efforts must be encouraged. The Committee are agreed that all external signs of the presence of evil must be rigorously suppressed. All red lights, street or window solicitation, indecent exposure, etc., must be completely suppressed.

With regard to the enaction of a penalty for the transmission of syphilis, while admitting the difficulties in the way of enforcement of the law, the Committee feel that the presence of such a law on the statute books would be of great educative value, as well as occasionally enabling justice to be meted out to a criminal. As it is mainly the younger prostitutes who convey syphilis, the enactment of a law raising the age of consent is suggested. Procurers not only do a great moral evil, but also a great physical wrong since their victims are destined, not only to become affected themselves with venereal disease, but to become foci of infection for others. The laws in this matter must be enforced to the utmost and the public conscience aroused by every possible means to encourage the detection and the unmitigated punishment of these criminals.

The Board of Health as at present constituted has not only the right, but the duty, to control contagious diseases. There is no good reason why their efforts should be limited to the less widespread and less dangerous diseases of this class. Venereal diseases are eminently contagious and are calculated more than any others to undermine the health of the community and especially of its most valuable members, young adults. The Board of Health must be aroused to a sense of its responsibility in this matter and all possible measures for the protection of health must be enforced. This seems the most natural way to get at the gradual suppression of the evil. Patience will be needed for the accomplishment of lasting good.

Meantime there remains the educative influence that the medical profession can exert upon the community. The declarations with regard to the dangers of venereal disease and the difficulty of its cure must be very straightforward. Young men must be plainly told that sexual continence is consonant with health and sexual indulgence absolutely unnecessary. The necessity for prompt treatment must be insisted on and public opinion must be brought to understand that every dispensary and hospital receiving public aid should provide treatment for venereal diseases. On the other hand, the impression that venereal diseases are easy of cure must be removed. All advertisements of secret sure remedies, of special infallible prescriptions and of venereal quacks, who never fail to cure, should be absolutely forbidden, not only in the public prints, but also in the form of posters in public places.

As can be seen from this brief review nothing of importance has been omitted in the Committee's report. It contains no startling suggestions and no radical opinions. It is very happily temperate and judicious. The report can scarcely fail to do great good by calling public attention to conservative medical opinion on the various phases of this important question. We hope that it will be given due publicity and foresee a partial accomplishment of its highest purpose in its own thoroughly deserving educative influence.

IT IS noteworthy that in States where interference with scientific experiments is prohibited to societies for prevention of cruelity to animals, much less commercial cruelty to animals is permitted than in States where "humane" societies levy on the people for antivivisection propaganda. Chicago, for example, in its brutal treatment of horses and of cattle at the stock-yards, presents a disagreeable contrast with New York, whose Bergh Society is forbidden to interfere with scientific experiment by its charter. Despite the money annually wasted on the "humane" society, private effort must battle against overloading and brutality toward horses. The leaders in the Chicago "humane" society devote their efforts chiefly to battling against vivisection, which has simply humanity and science in view, since warfare on commercial cruelty means loss of revenue and social status.

ECHOES AND NEWS.

NEW YORK.

New Health Institute.—The Health League of New York City was incorporated at Albany, November 21st, with a capital of $150,000, to establish schools and hospitals for the treatment of the sick through the "nature cure," as opposed to treatment by drugs and medicines, and to manufacture prepared foodstuffs, clothing and apparatus.

Woman's Hospital.—The Woman's Hospital in the State of New York, celebrated at its annual meeting, held recently, its forty-sixth anniversary. This hospital, the first of its kind, was founded for the treatment of gynecological diseases exclusively, and in its peculiar field has won much success, largely due to the disinterested services of the attending physicians and surgeons. For some years the Board of Trustees have been anxious to build a more modern hospital, and subscriptions to the amount of $370,000, $32,000 of which has been received during the past year, are now in the hands of the treasurer. At least half a million dollars will be required for the new building; but it is probable that the funds now in hand will be considered sufficient to warrant commencing the building the coming year.

Appointment of Dr. Jelliffe.—Commissioner Keller has ordered the appointment of Dr. Smith Ely Jelliffe as Visiting Neurologist to the City Hospital, the position made vacant by the resignation of Dr. Frederick Peterson when he was appointed Commissioner in Lunacy.

PHILADELPHIA.

Smallpox Situation in Philadelphia and Camden.—The smallpox outbreak in Philadelphia seems to show the effect of the wholesale vaccination employed, over 800,000 residents having been vaccinated during the summer and fall. Last week's report is 46 new cases and 7 deaths. There are now 213 cases in the city. The total number since the first of the year is 655 cases and 97 deaths. In Camden there is a slight increase in the number of cases. The Board of Health investigation to determine the cause of

tetanus in the cases reported last week has not as yet developed anything pointing to vaccination as the cause. In one family two brothers were vaccinated from the same tube of virus. One is very ill from tetanus, the other has shown no signs of that disease. In Burlington ten horses are being inoculated with virus as a test of its purity.

New Fellowship in Pepper Laboratory.—Dr. George Woodward has donated to the University of Pennsylvania $20,000 to endow the "Woodward Fellowship in Physiological Chemistry" in the Pepper clinical laboratory. The work of the incumbent will consist entirely of chemical investigations of disease.

Gift to Jewish Hospital.—Meyer Guggenheim of New York has made a gift of $60,000 to the Jewish Hospital Association for the erection of a building for the treatment of private patients. The income from the building is to be devoted solely to the charitable purposes of the Jewish Hospital.

Obituary.—Dr. Philo H. Banks of Mifflintown, Conn., died in New Orleans, November 23d, of typhoid fever. Dr. Banks, whose family is prominent in Juniata County, was a recent graduate of Jefferson Medical College. He had been in the employ of the British Government Transport Service between New Orleans and South Africa and contracted the disease on his last voyage.

Lupus Treated by the X-ray.—At a recent clinic at the Jefferson Hospital Dr. J. Chalmers Da Costa exhibited a patient with a patch of lupus at the base of the nose. The diseased area had been exposed sixteen times, twice a week, to the action of the X-ray, the remainder of the face being protected by a leaden mask. This treatment resulted in an apparent cure, but in a short time after the exposures were discontinued the ulcerative process again began. The treatment is now to be repeated.

New Laboratory Opened.—The Philadelphia Clinical Laboratory has been incorporated under the direct control of women chemists. Milk, gastric contents, urine, etc., will be analyzed and examinations made of tissue, blood, sputum, etc. Mary Pennington, Ph.D., Director of the Chemical Laboratory in the Woman's Medical College, is president of the newly-incorporated institution.

Sixty-five Physicians in One Block.—The statement is made that within the radius of four blocks in the central part of this city is located more than one-seventh of its medical population. In one block alone, Chestnut street, between Eighteenth and Nineteenth, there are sixty-five physicians. This surfeit is explained partly by the fact that the area mentioned is almost the center of the city. Another factor is that it is the location of many of the most prominent practitioners and younger physicians have of late years been attracted thither.

CHICAGO.

Contagious Disease Hospital.—Plans are on foot for a hospital where contagious and infectious diseases will be exclusively treated. For the purpose of giving information and collecting funds, an office has been opened. A charter has already been obtained.

Antitoxin in Diphtheria.—It is said that an increase of fully one-third in the number of deaths from diphtheria in proportion to the number of cases reported has been noted during the past two weeks. The medical inspectors of the Department of Health report a distrust of the use of antitoxin, both by physicians and parents, which fully accounts for this result. Such distrust is, in the judgment of Commissioner Reynolds, wholly unwarrantable. He says: "Probably never before in the history of antitoxin has this specific for diphtheria been so safe to use. The deplorable results in a neighboring city furnish no criterion of the method of antitoxin production in general, and the fact that more than 140,000 injections of the remedy distributed by this Department during the past six years without a single such result should reassure those who have been needlessly alarmed."

Norwegian Lutheran Hospital.—Contracts have been let for the construction of a hospital for the Norwegian Lutheran Deaconess Society, which is to comprise several buildings from one to three stories in height, at a cost of $40,000.

Report of Mercy Hospital.—Improvements in the equipment and additions to Mercy Hospital are described in the annual report just issued. A new amphitheater, buildings for the nurses and a thoroughly-equipped laundry were built during the year. The Hospital was successful in its mission of caring for the sick, and the Sisters of Mercy who manage the institution are satisfied with the condition of its affairs. The financial report shows that $104,395.15 was received during the year. Cash on hand, October 1st, amounted to $1,123.42. The indebtedness of the hospital is $134,609.53. Nearly all of the regular income of the hospital is required to defray the ordinary expenses, and with their report the Sisters of Mercy issue a call to the benevolent.

Opposition to St. Luke's Society.—Erskine M. Phelps, C. D. Peacock, Murray Nelson, and Dr. E. C. Dudley have joined in a petition to the Health Department against the issuance of a hospital license to this society. The petition declares that the society conducts a hospital for the treatment of patients suffering from the liquor and morphine habits. It states also: "That the method of conducting and operating this hospital from the nature of the ailments treated therein has been and must of necessity be a nuisance in law; that patients suffering from alcoholism are daily carried up the front steps of the hospital by the attendants, many of such patients being intoxicated to the point of helplessness, while others are suffering from delirium

tremens, and after being overpowered by the attendants, are carried screaming, cursing, and struggling up the stairs into the hospital; that frequently patients suffering from delirium tremens have run screaming about the neighborhood." The hospital is not the same as St. Luke's Hospital.

Morphine and Allied Drug Habits.—Dr. David Paulson, at a meeting of the Chicago Medical Society, held November 20th, said that the alarming increase in recent years in the number of neurotic individuals is producing a proportionate increased demand for sedative drugs. The very fact that almost every issue of popular magazines contains nearly a dozen alluring advertisements of various remedies or institutions purporting to cure these drug habits is a strong indication that there are plenty of victims to patronize them. In order to cure permanently a victim of one of the drug habits, either the patient must be built up into such a state of health that he will have no occasion in the future to depend upon the drug, or else he must develop a fortitude to bear suffering. Unless one or the other of these conditions is established in the cure, the time spent in most instances is simply thrown away. Some idea can be had of the author's treatment by narrating one of the several cases reported by him. Physician; male; smoked ten cigars daily; used alcoholic stimulants moderately; used four grains of morphine daily; had been using morphine occasionally for many years, but constantly during the last four or five years; also used several grains of cocaine, definite quantity not known. He was cut down to one-half grain of morphine the day after consulting the doctor. Treatment first day: Warm electric baths; fomentations to the spine; massage; rested quietly seven hours; slept two hours. Second day: Fomentations to the spine, stomach and liver; warm electric baths; massage; very nervous and sick; severe attacks of vomiting; injected $^1/_{150}$ grain of atropine; slept between two and three hours. Third day: Warm electric baths; massage; fomentations to the spine, stomach, abdomen and head; warm enemata; slight vomiting attack; rested and slept between five and seven hours. Fourth day: Warm electric baths; Swedish shampoo; massage; dry hand rub; warm enemata; restless; slept between two and four hours. Fifth day: Warm electric baths; felt better; slept between five and seven hours. Sixth day: Warm electric baths; massage; fomentations to the spine; read newspapers; walked about the room; rested several hours; slept a few hours. Seventh day: Hot electric baths; wet sheet pack; cool sponge; rode in street-car; strength good; mind clear; slept between five and seven hours. Eighth day: Similar treatment as before; wakeful and restless; slept but a few hours. Ninth day: Spent most of the day outdoors; took two doses of sulphonal on his own responsibility; slept from five to seven hours; spray in the morning after rising; felt quite well. Tenth day: Sedative treatment in bathroom; dismissed his night nurse; took sulphonal, but did not sleep. Eleventh day: Took sedative treatment in the bathroom; ate a few apples; and slept one hour and a half. Twelfth day: Tonic treatment; slept six hours. Thirteenth day: Same treatment; slept seven hours. Fourteenth day: Same treatment, and slept from four to six hours; gained strength. Fifteenth to the twenty-fifth day: Gained ten pounds; then went away feeling well pleased. One year later, a private letter from patient stated that he was well, happy, and attending to a large practice.

Infectious Origin of Purpura Hemorrhagica.—Dr. A. W. Schram reported the case of a patient, F. W., a barber, twenty-one years old, with previous negative personal and family history, who was suddenly taken sick with general malaise. On the fourth day of illness hemorrhagic spots appeared on the limbs, and in the course of two weeks the patient's body was almost entirely covered with purpuric spots. There was bleeding from the gums, but no bleeding from nose, and no blood in the urine or feces. In the third week of sickness, the entire left side of face became paralyzed, involving the oculo-facial group, but no paralysis of tongue or palate. The chest was negative. Liver and spleen enlarged. Temperature 102° to 105° F. Pulse 120 to 150. Axillary, cervical and inguinal glands enlarged. Blood: Red cells varied from 2,280,000 per c.mm. to 1,370,000. White cells varied from 16,000 per c.mm. to 4,000. Hemoglobin, 22 per cent. to 12 per cent. Differential count of white corpuscles gave 90 per cent. small mononuclears or lymphocytes. Cultures from blood thirty-six hours antemortem gave pure growths of staphylococcus aureus on all media inoculated.

Pathology of Purpura Hemorrhagica.—Dr. W. H. Rubovits said in this case the hemorrhages and hemorrhagic infarcts in unaccountable numbers were revealed at the autopsy in the liver, spleen, pancreas, kidneys, suprarenal bodies, lungs, heart and pericardium, pleura, peritoneum, synovial membranes, muscles, adipose tissue and skin. A few petechiæ were found in the meninges of the brain. The brain, intestinal and vesical mucous membranes were entirely free from hemorrhages. If sections are made through tissue in which no macroscopical hemorrhage has taken place, the cause of the bleeding may be ascertained. Minute blood-vessels were found in the spleen in which a distinct rupture had occurred, apparently just before death, because only a small amount of blood had escaped, and therefore the details in the tissue changes were unobscured. Another factor to be considered in relation to the hemorrhages in purpura is the formation of very large numbers of minute thrombi and emboli. The alterations in the blood and the circulation in the blood of large numbers of micro-organisms, together with the constant degenerations of the blood-vessels which obtain in this disease, conduce to the formation of these circulatory changes. The search for the

pathological changes in the vessel walls revealed the presence of micro-organisms in the circulation. By employing the special methods for staining bacteria in tissues, the cocci were also found in the parenchyma, but in very small numbers in contrast to the large numbers found in the blood-vessels. Notwithstanding the presence of the cocci, the parenchyma of the liver, spleen and pancreas was practically unaltered, and that of the kidneys and lungs showed only slight changes, a diffuse nephritis and bronchopneumonia. Marked hyperplasia of the agminated and solitary follicles of the intestines, with slight alteration, was present. This is the common finding in purpura hemorrhagica, due to the accompanying gastro-enteritis, which is commonly present and usually marks the onset of the disease, as in this case. The changes which were found in the liver have been found in other cases of purpura. It is the only finding which differs essentially from an ordinary septicemia. Letzerich says that just as we first feel for an enlarged spleen in malaria, so should we first look for an enlarged liver in purpura. The postmortem record of this case states that the liver was of a pale-brown color, firm in consistency, moderately increased in size, and that on section the markings were very distinct. The hemorrhages were very numerous. Microscopically, the interlobular connective tissue was found to be greatly increased in amount, and to contain many leucocytes and large numbers of the minute thrombi which have been referred to. The parenchyma was in a healthy condition. The changes correspond to an interstitial hepatitis.

GENERAL.

Medical Society of City Hospital Alumni (St. Louis).—This Society met Thursday, November 21st. Dr. W. C. Mardorf read a report of an Unusual Case of Oïdium Albicans, and Dr. L. Bremer read a paper on Artefacts of Blood Examinations.

St. Louis Medical Society of Missouri.—Two Cases of Tetanus from Diphtheria Antitoxin; Recovery; Presentation of Cases, was the title of a paper by Dr. T. A. Martin, read before this society November 23d.

Smallpox in Kentucky.—Smallpox has been costly in lives and money to Kentucky. All except nine of the 119 counties in the State—those nine being remote from the main lines of travel—have had more or less experience with smallpox during the present epidemic, covering a period of nearly four years. A total of 394 distinct outbreaks is reported, eighty-five of these being fresh importations from other States. In all 11,269 cases are reported, with 184 deaths, a mortality of 1.63 per cent. Special hospitals were erected in sixty-three counties and municipalities, but probably a majority of cases outside of the large cities and towns were isolated and treated in their homes. Much of the expense might have been avoided and many of the lives lost might have been saved had heed been given to the warnings urging vaccination.

St. Bartholomew's, London.—The students at St. Bartholomew's Hospital, London, will in future receive clinical instruction in insanity at St. Luke's Hospital. Hitherto they have had to go considerable distance to one of the County Asylums, involving an appreciable loss of time in transit and some inconvenience.

Virchow Institute in Russia.—The Russian Government has decided to establish a Virchow Institute in Moscow.

Anniversary of Leopold.—The one hundred and fiftieth anniversary of the founding of the Imperial Leopold Caroline Academy of Sciences, the oldest scientific society in Germany, will be celebrated at Halle on January 1st, 1902.

Medical Mayors in England.—That medical men make most efficient public officers is proven by the number of physicians serving as Mayors of various towns throughout Great Britain; one of them, Dr. J. M. Hughes, of Ruthin, having recently been re-elected for the sixth time, and several others are serving extended terms.

Æsculapian Medicine.—At the recent Pan-Hellenic Medical Congress, held at Athens, Mr. P. K. Avadias, Inspector-General of Antiquities in Greece, stated that, contrary to tradition and general belief, the temples of Æsculapius at Epidarrus, Crete and Rome, were not originally schools of medicine, nor hospitals, nor were the priests in any sense of the word physicians. The practice of medicine had its origin in folk-lore, and was at all times independent of religion. The first physicians were called Asclepiadæ; but the term is not believed to indicate any connection with, or succession to, Æsculapius. Eventually, however, the temples of Æsculapius became the resort of the sick and diseased, who were ministered to by the priests, under the belief that the cases which were treated according to the then established rules of medical practice were under the direct care of the god Æsculapius; and the patients were therefore expected to submit with religious faithfulness. What we now recognize as suggestion played an important part in the treatment; and detailed histories of the cases so managed would make interesting reading at the present day.

St. Mary's Hospital.—The new hospital of St. Mary's, Islington, London, has begun active service with over 600 beds occupied. This infirmary is situated in the center of a thickly-populated district, the inhabitants of which are none too rich in this world's goods. It is to be regretted that the great mass of clinical material thus aggregated is not available for teaching purposes.

Progress of Plague.—Eighty-five cases of bubonic plague with fifty deaths were reported from the island of Mauritius during the week ending November 7th. The epidemic in Egypt is about stamped out; but it is still perniciously active in India. Glasgow is now considered free

from the plague; and no fresh cases were reported in Liverpool during the week ending November 9th. A curious case occurred in this latter city. A boy was admitted to the hospital suffering from enlarged glands in the groin, supposed to be due to an injury received at football. The fluid from the glands was examined and found to contain plague bacilli. The source of infection could not be traced; nor was it found that the boy had spread the infection in any way.

Epidemic of Scarlet Fever in England.—Scarlet fever was found to be epidemic in several districts, some widely separated, in London. Inquiry elicited the fact that the milk supply of the affected districts was derived from two local vendors, and through these latter the source of infection was traced to a case of scarlet fever in the family of a Staffordshire farmer. The output of milk from this farm was stopped, with the result that the number of cases of scarlet fever in the London districts promptly decreased.

Italian Hospitals.—One fact which is painfuly apparent to Americans traveling in Italy is that, while Italian medical men are well advanced as scientists they have not made their influence felt to any appreciable degree in the matter of hospitals or general sanitation. The average Italian hospital is, from an American point of view, incredibly neglected and mismanaged, while the best of them are open to severe criticism. As to the care of the sick in their homes, it is, with occasional exceptions among the upper classes, clearly medieval, even to the point of touching one's sense of humor when one sees modern science abruptly challenged and called to a halt by some queer survival of superstition and prejudice. It is equally evident that little progress can be made in these directions without the coöperation of women and of a properly organized body of trained nurses. Private patients, as well as public hospitals and asylums, have been, in the past, left as a matter of course, and indeed of necessity, in the hands of the various nursing sisterhoods of the Roman Catholic Church, and these, while they deserve full credit for unselfish devotion to their self-imposed duties, are, it must be admitted, if measured by modern standards, altogether unequal to the demand upon them. The few foreign nurses who have established themselves in the large cities find employment almost exclusively among their own country-people, and have little or no influence beyond the sickrooms of their patients. But in Naples, Miss Turton, an English woman, and Miss Baxter, a graduate of the Johns Hopkins Training School, have obtained a provisional footing and are, in the hospital wards which have been put under their care, initiating an experiment which already promises a fair measure of success. Miss Baxter is training Italian women for nurses, and, although she is handicapped in many ways, as can easily be understood without going into details, reports favorably upon their fitness for the work. Miss Turton, going from Naples to Florence, has opened a "Casa di Cura," No. 48 Via Bolognese, for private cases, and there has her own training school, organized, as she herself says, "on English and American lines." This little hospital is well fitted up, delightfully situated, and provides all that is necessary for acute illnesses and operations, while travelers needing rest or special treatment can find those desiderata supplemented by most attractive surroundings.

Industrial Sanatorium in Colorado.—The Rocky Mountain Industrial Sanitarium, organized by Denver professional and business men last spring, is now in operation. On a ten-acre tract, five miles from Denver, fifteen or twenty patients in the early stage of consumption are virtually taking care of themselves. The rules of the institution compel a continuous outdoor life to be maintained summer and winter. Each patient is provided with a roomy tent, plenty of warm clothing and blankets, and a small stove to be used only in extremely cold weather. Experience has proved that with proper food and clothing, and a life in the open air and sunshine, artificial heat is unnecessary, and becomes absolutely unbearable to the patients, who without exception are gaining rapidly. The hope of the physicians and others interested in the enterprise is to form a colony of all consumptives who come to Denver, and thus take them off the streets of the city, and out of the hotels and boarding-houses, where they could never recover, and where they are a constant menace to the public health. While no one is allowed to profit, the institute must be self-supporting. The coöperative idea has already been put into force, for many of the patients are supporting themselves wholly or in part by doing the work on the premises. Margaret S. Dunne, who received high commendation for her work in army hospitals during the Spanish War, is the superintendent.

New Jersey State Hospital.—The new building of the New Jersey State Hospital was formally opened on the 21st inst. by Governor Voorhees. Governor-elect Murphy made an address.

Health of Cuba.—The report of Dr. W. C. Gorgas, U. S. A., Chief Sanitary Officer of Havana, says that the most prominent feature of the statistics for October is the fact that there have been no deaths from yellow fever in Havana, and not a single new case. It will be seen in the body of the report that three cases are reported, but these three cases were taken sick in September and carried forward into October. It will be seen that October, on the average, in the past ten years, has been one of the severest months for yellow fever. The maximum number of deaths from yellow fever since 1889, for this month, occurred in 1896, when there were 240 deaths; the minimum, in 1899, when there were 25 deaths; the average, 66.27 deaths; this year, no deaths and no cases. Last year, 1900, there were for October 308 cases and 74 deaths. This result adds another month as a practical demonstration of the truth of the mosquito-theory of the transmission of yellow fever. The results attained are

evidently due to disinfection on the lines commenced in February, as directed by the Military Governor with a view to killing infected mosquitoes. It has only occurred a few times since yellow fever became endemic in Havana, some century and a half ago, that an October day (and certainly never two successive days) has passed without a death from yellow fever. This year the whole of October was passed without a case or a death. This cannot be chance and cannot be entirely due to the general sanitary improvement. It might be considered a matter of accident, if the yellow fever record for October were simply slightly lower than the minimum for past years, and if the preceding months had been about the average; but the record for the whole year has been far under anything that has gone before, month after month showing the same good record. The conditions for having yellow fever are certainly as favorable as they were last year, the non-immune population being probably as great as it ever has been in Havana. The only change between last year and this is that since February all mosquitoes have been carefully killed in the neighborhood of every focus, as it has occurred. The infected house and all the adjacent houses, in every case, have been carefully disinfected. The fact that the marked improvement is not confined to October, but has taken place each month since attention has been devoted to the mosquito, is particularly emphasized by considering the yellow-fever year beginning the 1st of April. Since 1889, for these months, there have been on the average 362.16 deaths; the maximum, in 1896, 871; the minimum, in 1899, with 61; this year, 0. The change cannot be due to improvement in general hygiene, from the fact that last year, for this month, there were 74 deaths; this year, none. While there has been improvement in the general hygienic conditions, there could not have been so vast a difference as this would represent. The improvement in general hygiene is measured best by the general death-rate. The death-rate for October, 1900, was 24,33; this year, 1901, 20.17. The yellow-fever phase of the vital statistics is dwelt on, particularly on account of its vast practical importance to the United States. The great truth that yellow fever is transmitted by the "*Stegomyia*" mosquito, maintained by Dr. Charles Finlay against much ridicule for so many years, and recently demonstrated by the Army Board, must soon change all the methods of quarantine in the United States. In Havana, this year, work has proceeded on the hypothesis that the mosquito is the only way of transmitting the disease. Fomites have not been considered in any way. Clothing has not been disinfected nor any effort made, except to kill the mosquitoes which had bitten a sick person, and to prevent any more mosquitoes from biting, after the case was discovered. The results with this plan were so positive that it was soon seen that Havana could not be rid of yellow fever on these lines, but that each focus should be destroyed as it was renewed from the outside. The business interests of Havana were so closely united to those of neighboring towns that it was impossible to quarantine against them without causing entire business paralysis. These towns, early in the year, showed yellow-fever infection and a system of inspection of non-immunes was adopted, whereby every non-immune coming to the city from infected points in the neighborhood was registered and kept under observation for a week. In this way it was possible to get hold of all cases coming from these points—some 15 or 20 cases. Foci have developed in the city in each of the months of July, August and September, but they did not get beyond a few cases, and invariably disappeared after a disinfection, as described.

Obituary.—Henry Spencer Smith, F.R.C.S., Eng., a prominent surgeon of London, died on October 29th. He was the sole surviving charter member of the Royal College of Surgeons founded in 1843.

The deaths of the following eminent medical men are announced: Sir James Wilson Agnew of London, England; Dr. Marcel Nencki, the eminent physiologist of St. Petersburg and later of Berne, Switzerland; Dr. Arthur Koënig, of the Berlin Physiological Institute; Professor Karl Schuchardt, who was for some time assistant to Professor Volkmann at Halle.

Acting Assistant Surgeon Stuart Eldridge, of the Marine-Hospital Service, who was on duty in the office of the United States Consul-General at Yokohama, Japan, died recently. Dr. Eldridge was a native of New York, but had resided in Japan for many years. At the time of his appointment as an officer of the Marine-Hospital Service he was a member of the Imperial Board of Health of the Tokio Health Office and sanitary adviser to the Japanese Government. He was an honorary member of the New York State Medical Society and of the Alumni Association of Bellevue Hospital.

Dr. James P. Jackson died November 23d, aged fifty-seven years. He established the Missouri Pacific Railroad's first hospital at Washington, Mo., and the Wabash and Missouri Pacific's hospital service in Kansas City.

BYWAYS OF MEDICAL LITERATURE.

A SUCCESSFUL PHYSICIAN NOVELIST.

DR. JAMES BALL NAYLOR'S recent novel, "The Sign of the Prophet," promises to repeat the success of his first novel, "Ralph Marlowe." As the latter sold well up into the thousands and was for a time, from the author's standpoint at least, that very desirable success—one of the best selling books of the month, it is evident that Dr. Naylor has found literary occupation worth the while. The doctor is a practising physician at Malta, Ohio, and is, like so many other successful men of our generation, a self-made man. He worked on a farm, went to school at night and in the win-

ter taught school for a while, studied medicine and is now a successful novelist.

A succinct account of his career from his own pen appeared not very long ago in some of the literary journals. He puts it modestly in the third person. "His paternal ancestors," he says, "are Pennsylvania Quakers. His maternal ancestors are Virginia English. The family tree contains besides a sprinkling of Irish and Dutch as a condiment." He says characteristically "that he has worked on a farm, clerked in a drug-store, taught school, 'toted a grip' on the road, practised medicine and written for the newspapers."

Unlike most self-made men, the doctor does not too idolatrously worship his creator, although it is evident that he is not at all out of conceit with his own handiwork. He declares that "he got what little he knows by reading, writing and thinking. He believes that there is no school like experience, he bankrupts himself daily to gratify his taste for books, pictures and music, and rejoices in his penury. He loves dogs and children and never tires of the beauties of Nature. He could not live in the city if he would and would not if he could."

For the sake, perhaps, of brother physicians who may have literary aspirations, or for the sake of brother littérateurs who may not as yet have attained his success he gives some details of his methods of doing his work. "He thinks that he writes best of the things he knows best and he desires to stay close to them. He has a struggle with himself every time he sits down to write, then works like a galley-slave under the lash and enjoys it." He has a hobby and confesses to it thus: "He is an amateur photographer and wastes his substance in the riotous development of dry plates."

Dr. Naylor's books are pictures of life in a little middle Western town and are said to be drawn from life. He says that his first book was the legitimate child of experience and the details have a foundation in fact. The writing is cleverly done, the characters life-like, the story interesting, its development natural and unforced. In a word the medical profession would seem to have given another to the long list of popular novelists. Worthy elements in his success beyond the mere chance popularity of his books are undoubtedly present and so we may welcome another American literary physician.

OPERATIVE SURGERY IN AMERICA.

This is the title of an article in the October number of the *Nineteenth Century and After*, the well-known English monthly, by Robert Henry Nesbitt, M.D.

Dr. Nesbitt, who has seen the hospitals of England and this country, gives some points for the benefit of what he calls our English cousins. He finds the main distinction between English and American surgical methods to be that there is an evident dependence upon antiseptics in England rather than upon that extreme surgical cleanliness or asepsis which the American surgeon is accustomed to associate with his art. The only other important difference apart from individual peculiarities is the greater use of chloroform in England and the preference for ether in America. Dr. Nesbitt attributes some of our extreme spirit of surgical cleanliness to our environment. In the new tiled and porcelained operating-rooms so common in America it would be hard for any other spirit to prevail. It is a case of action and reaction, a new demonstration that one improvement in any matter always brings another in its train.

In the midst of hints directed to our English medical colleagues, Dr. Nesbitt has included some suggestive material that can scarcely fail to be of interest to the surgeons of every part of the world. We cannot refrain from quoting one valuable passage at some length.

"What I do wish to call attention to, however, is that bruising and tearing of tissue should be reduced to a minimum. Section should be done with a sharp knife—the sharper the knife the less injury—not with the fingers or the handle of the knife. Wounds should not be violently retracted nor stretched to give a better view. 'Pull harder,' is a poor expression for the operating-room. Fasciæ should not be dissected out beyond the limits of absolute necessity. In short, our wounds should remain simple incised wounds and not become contused or lacerated wounds through our own manipulations. During an active hospital service we sometimes see the wounds of one surgeon present those vexatious little delays in healing, such as superficial abscesses or stitch abscesses which irritate both patients and surgeons, while those of his neighbor, not more careful nor cleanly, heal without the slightest disturbance. The secret is that one man pulls and hauls his tissues and does blunt dissection, while the other has acquired the knack of doing his work with no injury beyond that absolutely necessary. The patients of the first surgeon may not die, but we and they expect more than that. Wounds should heal primarily."

EXPERTS.

The *Westminster Review* (London) for October has an article on this subject that is the usual antivivisection howl. It becomes increasingly difficult to understand how intelligent editors of reputable magazines admit this sort of rot to their pages. This is the usual collection of hints, half stated facts, garbled reports and insinuations. Fortunately the article is much shorter than is usually the case. This shows editorial good sense at least. The gist of the present attack on experimental medicine assumes that practically all physicians, absolutely all who are not outspoken in their condemnation of vivisection, are ready to experiment upon human beings and even to make their patients the unconscious subjects of scientific experiences. For people who will believe such statements there is nothing to be said. There is no common standpoint of recognized truth from which argumentation

against their opinions can begin. They must be left to their systematized delusions founded, as they are, on groundless imperative ideas.

PSYCHIATRY: ANCIENT MEDIEVAL AND MODERN.

This is an excellent historical review of the treatment of mental diseases in all times by Frederick Lyman Hills, M.D., of the New Hampshire State Hospital. It appears in the *Popular Science Monthly* for November. There are some striking facts in this history of the popular attitude towards insanity. For instance, the author says that it is probable that one-fourth of the 40,000 persons executed for witchcraft during the first 80 years of the seventeenth century in England alone were insane. While some of the poor insane were taken thus seriously, others were a subject of public exhibition. The famous hospital called Bedlam in London was converted in the reign of Henry VIII. into a house for the reception of lunatics. Up to the year 1770 the patients were exhibited to the public like wild beasts in cages on payment of a penny and they are said to have afforded much sport to the visitors who flocked to see them in numbers estimated at not less than 48,000 annually. Surely not a thought to dwell upon in these latter days.

The spirit that gave rise to the French Revolution and its awful horrors by a queer contrast proved the origin also of a proper realization of the duties owed by the State and the medical profession to the unfortunate insane and also we may add to the deaf and dumb and the blind. It was as a result of the recognition of inalienable individual rights brought about by the declaration of the "Rights of Man" that Pinel was able to obtain permission to remove the chains from the insane patients at Bicêtre and the Salpêtrière. The improvement in the treatment of the insane among English-speaking people is, curiously enough, largely due on both sides of the Atlantic to the initiative of the charitable spirit of that well known philanthropic body, the Society of Friends.

The history of psychiatry is interesting and of suggestive importance, because it represents the gradual development of the attitude of mind which recognizes the diseased state from which insane patients suffer. The progress to gentleness in the treatment of the insane represents the gradual evolution of unselfish philanthropy in the advance of culture. Recent years have seen the development of the open-door system and the almost complete eradication of all methods of restraint. The more wholesome feelings in this matter are an index of advance in true humaneness and a forecast of the still greater spirit of kindliness toward mental unfortunates that is to develop during the present century. History in this becomes a teacher of practical importance, because an incentive to earlier evolution of true popular notions in this great and ever increasing subject.

CORRESPONDENCE.

OUR LONDON LETTER.

[From Our Special Correspondent.]

LONDON, November 16, 1901.

THE GENERAL MEDICAL COUNCIL—ELECTION OF MEMBERS FOR ENGLAND, SCOTLAND AND IRELAND—FAILURE OF DIRECT REPRESENTATION—OPINIONS OF SIR JAMES PAGET—THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE—ILLNESS OF A PROMINENT PATHOLOGIST.

WE have here, as you know, a kind of medical Parliament or Senate, the General Medical Council, which is supposed to look after the education of candidates for admission to our noble profession and the professional morals of its members. In a previous letter I gave a sketch of the composition of this highly respectable, but only moderately useful body. The bulk of it is made up of representatives of our numerous universities, colleges and corporations which grant the license, as Molière puts it, *purgandi, seignandi, taillandi, coupandi et occidendi impune per totam terram*, or, to be accurate, such portion of the earth's surface as is comprised within the sphere of King Edward's sway. In addition to these, there is a handful of members of the Council who are elected directly by the profession. Of these "direct representatives" England has the privilege of possessing three, while Scotland and Ireland have each one. They are elected for five years, and their lease of representative life has now with one exception virtually run out. The exception is Mr. Victor Horsley, who was returned at a by-election four years ago. Mr. Horsley had announced his intention of waiving his right to sitting for another year, and of offering himself for re-election with the others. Almost at the last moment, however, it was discovered that, according to the wording of the Act, if he resigned before having served out his time, he could not stand as a candidate.

The medical profession of Great Britain will, therefore, in another week or two be called upon to take part in a general election in miniature. Owen Glendower boasted that he could call spirits from the vasty deep, but Hotspur unkindly asked if they would come when he called. This may be applied to the profession in regard to the election. Judging from the precedent of the last two or three, they will not come however urgently they are called. The fact is, the medical profession as a whole regards the election and the General Medical Council, its acts and deeds, as well as its alleged misdeeds, with profound indifference. The whole business is practically left to a small body of fussy nonentities who think that the professional world is out of joint and that they were born to put it right. Their aim is not to raise the general standard of scientific knowledge, of intellectual culture, and of personal character and conduct, but to make it a profitable commercial monopoly. Their ideal is a strong trade-union. The election will, therefore, turn

on such matters as the prosecution of quacks, the suppression of certificated midwives, and the "boycotting" of practitioners who make their own terms with friendly societies and similar organizations. The candidates—on the enumeration of whose names I need not waste a line—have been on the stump for some weeks, and the medical journals are full of their dreary oratory. Among the candidates for England is a homeopath, who, like the rest, is calling for the reform of things in general. They all profess to believe that everything could be put right, as by the waving of a magician's wand, if the General Medical Council were "reformed," that is, if it were to be composed entirely of "direct representatives." In order to appreciate the statesmanlike character of this demand, it is necessary to know that, in the judgment of all sane men who have given any attention to the subject and dare to speak out, "direct representation" has been an utter failure from the beginning and now threatens to become a disgrace to the profession. At recent elections men of no professional standing whatever have been returned, who, by their illiterate speech and their narrowness of view characteristic of the petty tradesman, have brought themselves and the constituents who chose them into contempt. The violence of others, for whom the excuse of want of education cannot be pleaded, has disgusted sensible men. Not long ago I heard a man, who may be taken as the type of a British doctor of the best kind, when some one spoke of the increase in the number of direct representatives that is being clamored for, exclaim with a groan, "More of that sort? Heaven preserve us!" This may be taken as representing a widespread feeling, but the incurable apathy of the profession in regard to medical politics prevents the feeling finding practical expression. Scarcely a third of the practitioners of England could be got to vote in the most fiercely-contested election there has yet been—that which took place four years ago when Mr. Horsley defeated Sir Walter Foster.

I have just been reading the "Memoir and Letters of Sir James Paget" by one of his sons which has recently been published. There are in it one or two passages which have a special interest at the present time. Paget was a member of the General Medical Council, and under date October 30th, 1896, we find him complaining to Sir William Turner (who is now its president) that "the whole work of the Council is constantly becoming more political." He goes on to say that "the direct representation will not improve it, but will steadily diminish its influence on the advancement of science and of all forms of useful knowledge." Paget spoke from most extensive experience of men and things in the medical profession; he was also a man of singular intellectual honesty, and his opinion on a matter of this kind is of the greatest possible weight.

Among those whom the King delighted to honor on the occasion of his own birthday was Mr. A. L. Jones, the Liverpool merchant whose name has come so prominently—and so persistently—before the public during the last two or three years in connection with the Liverpool School of Tropical Medicine. It has been a close run between him and Major Ronald Ross; it is doubtful, indeed, which of their names has shone most regularly in the journalistic firmament. Of course, neither of these illustrious men can be suspected of a vulgar desire for advertisement; they shine because they are luminous, and if their light has not been hidden under a bushel, the reason of this is doubtless that otherwise the world would have been left in darkness. The world, however, is proverbially ungrateful, and one hears that Liverpool is getting a little tired of Sir A. L. Jones, Knight Commander of the distinguished order of St. Michael and St. George; and it is even whispered that the medical profession of that city is beginning to feel that it has had almost enough of Major Ronald Ross. They are not so proud as they perhaps ought to be of the School of Tropical Medicine which they owe to the commercial enterprise of Sir A. L. Jones. It has been uncharitably suggested in a weekly journal called the *Critic* that the aforesaid Knight's munificence in fitting up scientific expeditions to the West Coast of Africa is intended to hypnotize the British public into the belief that the happy hunting-grounds which he has made for himself in that ill-favored region are in reality first-class health resorts.

As for the school, if advertisement in season and out of season can make it prosper it should be successful. Probably it does fulfil the object of its existence; at any rate those concerned in the venture profess to be satisfied with its progress. It certainly is excellently equipped and it has teachers of unquestionable ability. The only thing which it lacks is students. I have been told on good authority that last term the number of seekers after knowledge who knocked at its gates was—four. But as the prophetic soul of Sir A. L. Jones, dreaming of things to come, has quite recently induced him to found a college for students which it is said will in time provide accommodation for 200, it is evident that he puts his trust in the future. And the announcement of the fact has also, it may be presumed, its purpose in the present.

Dr. Lazarus-Barlow, one of the rising lights of pathology in this country, has been sick nigh unto death from the effects of a postmortem wound. It is said that he has had to undergo amputation of the arm. He is now slowly recovering.

INSURANCE EXAMINATION FEES.

To the Editor of the MEDICAL NEWS:

DEAR SIR: I was much interested in the editorial in your issue of November 2d on contract services. As it is in direct line with another great evil, I beg to say a word about it.

The various fraternal insurance societies ask an examination equal to that of old line companies

even to the urinalysis, and have the boldness to ask it all for the munificent sum of one dollar. And this does not include it all. We are further asked to do an agent's work by filling out the applications for membership and even urged to solicit new members.

The old line companies have set the price of these examinations at from $3.00 to $5.00, which is reasonable and fair—certainly not too much—and do not ask the doctors to do any extra work at all. They are willing to pay a fair price for good work and their medical directors are not beggars, but when I see a member of our noble profession asking his brother to work for one-third to one-fifth of what the work is worth I am shocked and ashamed.

What about the doctors who will make these examinations for "contract price"? They are only establishing a price for the rest of their work, and when the demand for the reduction is made they will probably be so afraid their next-door neighbor will get the case that they will readily cut the price in a similar manner to the insurance fee.

I would suggest that every medical society in the land take up this matter and do away with the absurdity of working for one-third to one-fifth price, and would add that, in my humble opinion, no self-respecting doctor will do $5.00 worth of work for $1.00 when it is for people able to pay.

I am free to reduce a charge for charity or even make no charge at all, but when it comes to reducing prices in order that this or that society may advertise the very low cost of insurance in order to compete with others, I protest.

In regard to fraternal insurance, I might also say that it is much the same as other things. People who try to get something for nothing usually get left, and the 2,000 defunct societies in our land will illustrate this fact.

Weldon, Ill., Nov. 8, 1901. D. D. BARR.

TRANSACTIONS OF FOREIGN SOCIETIES.

French.

CALCIFIED EPITHELIOMA—HEMO- AND CYTODIAGNOSIS IN SURGERY—RACHICOCAINIZATION—CHLOROFORM ANESTHESIA—ETHYL CHLORIDE ANESTHESIA—ANTITETANIC SERUM—CRANIAL TRAUMA WITH SURGICAL INTERVENTION—EPILEPSY WITH SURGICAL TREATMENT.

J. REVERDIN (Geneva) at the Fortieth French Congress of Surgery, held at Paris, October 21 to 26, 1901, read the notes of a case of calcified epithelioma. The tumor was removed from the neck two years ago, was of bony hardness, and in gross appearance strongly suggested the variety described by Malherbe of Nantes. Contrary, however, to the teachings of this authority and his pupils a recurrence took place. It would, however, appear that the essential benignity of the calcareous epithelioma is less definite than they have supposed. Malherbe himself reported to Reverdin the fact of one recurrence. The author has correlated some fifty-three cases of this disease and found only two examples of recurrence, namely, the cases of Malherbe and himself. The author's patient refused a second operation, but was followed for some time. After a while the tumor grew to considerable proportions.

TUFFIER (Paris) presented a discussion of the comparative value of hemo- and cytodiagnosis in surgery, claiming that they furnish the means of deciding between two classes of affection, the suppurative and the non-suppurative. One example, which he quoted, was the case of a woman pronounced by a number of competent physicians to be the subject of an osteosarcoma, who was found to have a suppurative condition by an examination of her blood. This diagnosis was confirmed at the time of the operation. Again, the decision between a case of appendicitis and of typhoid fever can often be fixed to a degree of nicety by this method alone. Finally, the distinction between the various types of tumors can also be made out thoroughly. The cytodiagnosis conceived by M. Widal is equally a means of settling difficult points. Lumbar puncture will permit us to distinguish definitely between a fracture of the skull and simple cerebral contusion, provided blood is found in the cephalo-rachidian fluid.

VILLAR contributed a report of seventy-six rachicocainizations for various surgical operations, chiefly on the lower extremities and the subumbilical zone of the trunk. His first series comprised thirty-six cases, of which two only were failures and each of these was a laparotomy. No bad effects were noted in the other cases, beyond a cephalalgia of great intensity which seemed to be the only actual sequel of the injection. Three of these patients died, the first from shock due to acute intestinal obstruction; the second from the after-effects of a complicated fracture of the pelvis, and the third was hopeless at the time of the operation. In the second series, namely, forty cases, there were no deaths and no unfavorable sequelæ.

PERAVIE (Paris) narrated his experiences with chloroform as a general anesthetic in 2,000 cases. He had only one death which occurred at the end of the operation and made him believe that after all the anesthetic had little or nothing to do with it, because fatalities from chloroform alone usually occur very early in the course of the operation. The method of administration which he used is the small dose continuously given. The author said that every practitioner should keep notes of all his cases of general anesthesia and report the same, especially with the view of making comparisons with the injection of cocaine into the spinal cord.

A. MALHERBE (Paris) commended a new method of giving ethyl chloride for general anesthesia during operations which last a short time. The procedure involves pouring from a half to a full teaspoonful of the drug into a tight cone, shutting off the air and compelling thus the in-

spiration of concentrated vapor. Full anesthesia supervenes in a very few seconds. If, however, the operation is to be prolonged, it is better to change off to chloroform so soon as the fact of long duration becomes evident.

LETOUX (Vannes) delivered a dissertation on the therapeutic value of antitetanic serum, basing his observations upon four recent cases, comprising three among farmers with wounds of the foot and one in a cook. In all the injury and infection were of comparatively recent date, ranging from seven to ten days. The treatment was begun as soon as the earliest symptoms of tetany showed themselves. It is not always necessary to resort to anesthesia and after all the injection of the fluid into the cerebral ventricles is not a difficult procedure. In the opinion of this observer, his prompt and complete cures were due to the generous injections he used. Ten cubic centimeters were thrown into each hemisphere.

BOUSQUET (Clermon-Ferrand) narrated six cases of injury to the cranium which required surgical intervention. In all those operated upon five days after the accident or earlier the results were ideal. Symptoms of cerebral compression soon appeared in all of the cases and the craniectomy permitted access to and removal of the cause of the difficulty. He also referred to another series of cases in which the operation was done too late. It is more and more evident that these cranial operations must be done at the earliest possible moment after the appearance of any symptoms, because delay often results in permanent or hopeless damage by the factors which cause the symptoms.

VIDAL (Périgneux) stated that by means of amyl nitrite he had been able to distinguish cerebral compression as the cause of a general epilepsy. Hemicraniectomy revealed a small, sessile, intradural fibroma. This was at once removed and a cure followed. The operation was done several months ago and since that time no vestige of the epilepsy has remained.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON PEDIATRICS.

Stated Meeting, Held November 14, 1901.

William L. Stowell, M.D., Chairman.

Automatic Siphon.—Dr. Henry L. Coit said that one of the principal difficulties in arranging for infant-feeding with the proper proportion of ingredients in the prepared food is the difficulty of easily obtaining cream of a definite percentage of fat content. He thinks that the siphon he presented will overcome this difficulty. It is a creaming siphon that will effect the complete separation of the cream at the cream line, or deliver a mixture of cream and skim milk, at any line to be determined upon. The ordinary quart milk-bottle is used as the source of the cream and milk. This is supposed to hold 32 ounces, but most of them do not hold much more than 31 ounces. There are differences in the contents, because the bottles are molded and some of them contain more glass than others. This gives rise to some inaccuracy in the delivery of a definite quantity of milk and cream, but not enough to vitiate the proportion seriously. The table on which the bottle rests must be level and the siphon must be inserted to the bottom of the bottle. The end of the siphon that dips into the bottle is funnel-shaped. This enables it to be filled easily with water, and this lessens the danger of the nursemaid applying her mouth to the end of the siphon in order to start the flow of liquid, which is always an objectionable proceeding. Moreover, the presence of the funnel makes it easier to clean the tube in running water, and when inserted into the bottle the funnel-shaped end causes the instrument to rest more evenly on the bottom of the bottle than would otherwise be the case. If about four ounces are allowed to remain in the milk bottle, with the usual milk, this will contain about 20 per cent of fat. When six ounces are left it contains about fifteen per cent; eight ounces, about twelve per cent; 11 ounces about 10 per cent, and 16 ounces about 8 per cent of fat. The ordinary milk as served to customers in cities is presumed to contain, according to well-known investigation, about 4 per cent of fat.

Top Milk.—Dr. Chapin has found that the best way to obtain a fairly constant cream is to allow milk to stand for about six hours in a cool place. The creamy layer, known as gravity cream in the trade, contains nine-tenths of the butter fat in the milk. If the first nine ounces of this are used, it may be considered to contain cream in the proportion of three to one to the amount of milk. If the first fifteen ounces are used, the proportion is about two to one. For the obtaining of this upper layer Dr. Chapin considers that the dipper, which he suggested some time ago, is cheap and clean and easy of employment. It is a simple matter to give the nursemaid the proper directions for its use. Above all things to be successful, the feeding of infants must be simple. If there is any dirt in milk it is well known that it sinks to the bottom and can often be seen in bluish black particles through the glass of the bottle. By the use of Dr. Coit's siphon, this dirt is not apt to be removed, or at least not removed entirely, because the upward flow through the siphon is gentle and does not disturb the lower layer of milk very much. The dirt remains to contaminate the upper layer of of milk, which is left in the bottle after siphoning to be used for feeding purposes.

Safety-Pin in Vagina.—Dr. Sara Welt-Kakels presented a safety-pin that had been removed from the vagina of a child of eight years of age. When the child first came under treatment it was suffering from a vaginal discharge that was at times bloody. This led the mother to think that perhaps the child was developing precocious menstruation. The discharge was considered an ordinary leucorrhea, and was treated by vaginal

irrigation with permanganate of potash solution and improved considerably. After a time, however, the discharge recurred and once more was streaked with blood. A small vaginal speculum was then inserted and grated upon a hard object. The safety-pin was found and removed. It was considerably corroded by the action of the vaginal secretions. Since its removal the discharge has not reappeared.

Coin in the Esophagus.—A child of thirteen months was brought to the speaker suffering from severe vomiting the origin of which was traced apparently to its having swallowed a penny. The child was given the coin to play with and it disappeared; afterward whenever food was taken vomiting occurred. The first physician who saw the case recommended the potato cure, but the potatoes were vomited. An operation was then suggested, but the mother refused to permit it. Dr. Kakels located the cent by means of the Roentgen-ray and found that it was situated in the esophagus about the level of the first rib. It was removed by means of a flexible bougie with the coin-catching attachment. There has been no vomiting since and the patient's general condition has improved very much.

Apparatus for Collection of Urine and Feces.—Dr. Kakels presented an apparatus that is used in Prof. Heubner's clinic for the collection of urine and faces for the purposes of observation upon child metabolism. A tube is fitted to the urinary apparatus in front and to the anus behind and the child is placed in a garment that enables these tubes to be readily held in position. Professor Heubner says that children do not stand being in the apparatus for long periods, but if a physician has occasion to collect urine, for instance, and wishes to obtain it in some less inaccurate way than is usually the case, this apparatus is extremely useful.

Widal in Typhoid in Children.—Dr. Milton A. Gershel read a paper on the value of the Widal reaction in children as illustrated by cases seen in the service of Dr. Koplik at Mt. Sinai Hospital. Typhoid in children in the hospital experience runs an atypical and often an anomalous course. The temperature curve is not infrequently irregular, the spleen is often not enlarged, and, besides, enlargement of the spleen is not as significant in children as in adults, because it occurs whenever rachitis exists or in intestinal disturbances generally. The method of applying the Widal test at Mt. Sinai Hospital was to determine whether agglutination of the bacilli took place when the blood was diluted to the extent of one to twenty. If there were still doubts, then the test was repeated with a dilution of one to fifty. Dried blood was used in all cases, except where the clinical course of the case aroused serious suspicious of typhoid and yet the Widal test continued to be negative. In somewhat less than half the cases typhoid fever in children ran the usual course. In the remainder it was suspected that other diseases were present. Among these were such conditions as tuberculous meningitis, or peritonitis, certain cases of pneumonia, and some seemingly simple intestinal conditions. In only 36 of over 100 cases was the Widal reaction positive at a first examination. Thirteen per cent of the cases gave the reaction before the seventh day of the fever, 46 per cent before the fifteenth day and 85 per cent before the twenty-fifth day. In more than half the cases, therefore, the Widal reaction left the diagnosis in doubt until well on in the third week.

Late Widal Reaction.—Dr. Lovett Morse of Boston, in the large series of cases collected by him, found that the Widal reaction did not occur in most cases before the end of the second week. Professor Musser pointed out in the Philadelphia series of cases that the reaction did not as a rule occur before the seventh day. In this series of cases at Mt. Sinai Hospital, eleven gave a positive Widal before the seventh day. Because the occurrence of the Widal reaction is delayed there is no reason for thinking that the disease is not typhoid if other symptoms raise the suspicion of its existence. In one case thirteen blood-examinations were negative before the positive reaction was finally obtained, yet all the time the case was running a typical typhoid course. Other symptoms, such as the diazo-reaction and even bleeding from the bowels, had occurred. In some cases the Widal reaction is only positive during convalescence from typhoid fever. In most cases the occurrence of a negative reaction has but very little significance. The experience at the Mt. Sinai Hospital points out that typhoid fever often exists in children in cases where it was usually unsuspected and where the symptoms apparently pointed to the existence of some other disease. In all cases presenting bronchial or meningitis symptoms that occur during the summer and fall the Widal reaction should be looked for. It often clears up the diagnosis of the case and shows the typhoid origin of the symptoms.

Exanthematous Typhoid.—In one case at Mt. Sinai Hospital the patient, after having been admitted with a rather high fever, developed an extensive exanthematous eruption. This aroused the suspicion of scarlet fever and the case was isolated. An examination of the blood showed that the Widal reaction was present. Later the disease ran a typical typhoid course. Dr. Koplik considered this to be one of the rare cases of exanthematous typhoid that have been reported by certain authorities, the existence of which has sometimes been doubted. In one case the patient seemed to be suffering from lobar pneumonia. Under ordinary circumstances a few years ago no other diagnosis could have been made. A typical Widal reaction was present and the subsequent history showed that the case was undoubtedly one of typhoid. Three other children in the family suffered from typhoid fever, displaying the ordinary symptoms of typhoid and the Widal reaction and cases developed in

the same house, on the floor above and below that on which the child had lived. In one of the cases at the Mt. Sinai Hospital all the symptoms of purulent meningitis were present. The child had the stiffness of the neck muscles, was stupid and not easily aroused and had the Koenig symptom. The Widal test was made and a positive reaction obtained. Afterward a needle was inserted into the spinal canal and some cerebrospinal fluid removed. This proved to be clear, but contained typhoid bacilli, thus confirming the Widal test. The child recovered, showing that the diagnosis of purulent meningitis would have been a mistake.

Importance of Widal Reaction.—Dr. Koplik said in the discussion that the employment of the Widal reaction at the Mt. Sinai Hospital has made it very clear that it is extremely important to make the Widal test whenever children suffer from febrile symptoms for which no sure cause can be given. There are many conditions in children which resemble each other and the diagnosis can frequently only be made by exclusion. It used to be said that typhoid was rare in children. This was only because of the difficulty of making an assured diagnosis of the disease. He has seen the Widal reaction positive in a child so well that it was playing around the ward, though with a slight febrile temperature. The case did not prove a severe one, but it can be easily understood that in the midst of a large family or in a crowded tenement-house such a case might easily prove a center for the spread of infection. In meningeal cases, especially, it is important to make the Widal test, since one does not always care to make a lumbar puncture, and, moreover, the diagnostic significance of the cerebrospinal fluid is not always final.

Frequency of Typhoid in Children.—Dr. Berg of New York said that it is not ten years since a great specialist in children's diseases said in New York that he doubted if typhoid fever ever occurred in children under five years of age. Now we know, mainly as the result of the Widal test, that the disease is not uncommon even in very young children. If they are exposed to infection they are quite as liable to take the disease as adults. Undoubtedly the Widal test is of extreme importance for the diagnosis of typhoid. It is the most omnipresent symptom. Dr. Cabot of Boston has collected five thousand cases of typhoid fever in 97 per cent. of which the Widal test was positive. The Widal reaction is not of importance for the early diagnosis of typhoid fever. For this purpose the blood-count is undoubtedly better. There will often be found a diminished number of white blood-cells on the first or second day in bed with typhoid fever. The demonstration of the lowered leucocyte-count is rather easy and if taken in connection with other clinical symptoms may be of very great importance in pointing out the existence of typhoid fever in a doubtful case long before the Widal reaction develops.

Bovine and Human Tuberculosis.—Dr. David Bovaird of New York read a paper on primary intestinal tuberculosis in human beings and its relation to bovine tuberculosis. The recent paper of Professor Koch before the International Tuberculosis Congress has made interest in this subject acute. Dr. Bovaird has been collecting data on the subject for some years. The number of cases of primary tuberculosis of the intestines supposed to be connected with bovine tuberculosis directly are extremely rare. Bacteriologists are not agreed whether human and bovine tubercle bacilli are varieties of the same microorganism or are individual bacteria with certain extrinsic similarities. Tuberculosis in cattle is not at all rare. It is, however, not as frequent in this country as has been sometimes asserted. Professor Osler points out that in Baltimore about three per cent of the more than 5,000 cattle that are slaughtered yearly are tuberculous. In Boston less than 1 per cent are found to be affected with tuberculosis. The German Government called attention to the fact that bovine tuberculosis was not liable to be communicated to human beings by eating the flesh of tuberculous animals, unless nodules of tuberculous infiltration occurred in the muscles. This is, however, extremely rare. With regard to the milk of tuberculous animals, it is dangerous only when the udder of the animal is affected and tubercle bacilli thus find an entrance in numbers into the milk. Adami, however, has found tubercle bacilli in milk where there was no demonstrable tuberculous affection of the udder to be found after very careful examination by all the known physical methods.

Milk Dangers.—Professor Nocard of Paris pointed out that even when the milk of animals injected into the peritoneum of guinea-pigs proved to contain virulent tubercle bacilli and set up tuberculous processes, the fluid might still be perfectly harmless when ingested by the mouth. The digestive juices bring about changes in the vitality of the tubercle bacilli, or absolutely deprive them of life, and so prevent their inflicting any injury. It is evident from the experience of many parts of the world that milk is virulent only when there are very many tubercle bacilli in it and when this material is used almost exclusively as an article of diet as is the case in infants and in invalids.

Bovine Tuberculosis in England.—English cattle seem to suffer more from tuberculosis, and tubercle bacilli are oftener found in the milk supplied in English towns than in our country. Kanthack found that more than one-half of the cattle near Cambridge in England were affected by tuberculosis. In Liverpool it was noted that the milk from cows taken care of in the city itself was less dangerous in this respect than that obtained from the country. The reason for this was that more care as to cleanliness and the maintenance of health was insisted on in the city then in the country. There is no doubt that under ordinary circumstances the dilution of the milk of tubercular animals by that from healthy animals greatly lessens the danger from this source.

Milk and Human Tuberculosis.—There is but scanty evidence of milk producing tuberculosis in children. Notwithstanding all that has been said in this matter and the amount of sensational claims made, Dr. Bovaird after careful search of the literature has been able to find only sixteen cases in which tuberculous infection could be fairly traced to milk. This is an astonishingly small number, yet even these few cases show the possibility for this form of infection and point out an ever-present danger. Tuberculous processes often exist at the same time in the respiratory and intestinal tracts. It is probable that at times the tubercle bacilli penetrate the intestine without producing injury, that is, without ulcerative lesions, but then they are caught in the intestinal lymph-nodes. It is only when intestinal lesions exist exclusively or when the abdominal lesions are much more pronounced than the respiratory lesions that tuberculosis can be considered to have found its entrance through the intestines. Professor Woodhead of England considers that primary intestinal tuberculosis is rather frequent. Nearly all the continental authorities on the subject of tuberculosis are opposed to this opinon.

English and American Statistics.—While in England the proportion of intestinal primary tuberculosis to all other forms of tuberculosis seems to be as high as eighteen per cent, in New York in three series of cases it is scarcely more than one per cent. This makes a difference of opinion that is extremely hard to reconcile with facts and a problem whose solution Dr. Bovaird is unable to reach. At the New York Foundling Asylum there are nearly 2,000 infants under the care of the institution. In case of death autopsies are made and in two series of cases of tuberculosis, 125 in all, only five cases, three in the first series and two in the last one, could be fairly considered to be primary intestinal tuberculosis. In this series of autopsies the deaths from tuberculosis represent eleven per cent of all the causes of death. This is considerably lower than that of foreign observers, but is very nearly the average percentage of deaths from tuberculosis according to various observers in this country. Tuberculosis of the intestine is less frequently observed there than abroad, and it is evident that tuberculosis is seldom due to tubercle bacilli in milk. It would seem, however, that the possibility of infection in this way cannot be denied.

Respiratory and Intestinal Tuberculosis.—Dr. William H. Park said that wherever patients with respiratory tuberculosis are found a great many tubercle bacilli are sure to be present in the air. It is possible, then, even when the primary lesions of tuberculosis occur in the intestinal tract that the source of these micro-organisms may have been the air from which the microbes are deposited in the mouth and then swallowed. In such cases the true source of the infection is human and is not derived from cows or other animals.

Experimental Work on Tuberculosis.—Dr. Park has recently had made a series of observations on calves at the laboratories of the New York Board of Health. Five animals were inoculated subcutaneously and fed with human tubercle bacilli. Before the experiment none of them showed any reaction to tuberculin. Neither did a sixth animal that was kept as a control. After five weeks of repeated inoculations and feeding with tubercle bacilli, the five animals showed a reaction to tuberculin. Two of them were killed, but no bacilli were found, nor any characteristic lesions of tuberculosis. Two of the remaining three animals have run down in health and are showing signs of some constitutional disease. They will be killed when it is hoped that satisfactory lesions have been formed. Some time ago Dr. Ravenel showed by a series of experiments that animals could not be infected with pure human tubercle bacilli. If, however, secondary infective processes were at work as well as tuberculosis, then human tuberculous material became virulent for animals. Human sputum for instance that showed signs of mixed infection produced tuberculous lesions in cattle. It would seem that the presence of other bacilli in addition to the tubercle bacilli lowered the tissue resistance of the animal and caused infection.

Foreign and American Tuberculosis.—Dr. T. S. Southworth said that in a series of autopsies made by him and previously reported he found that the average mortality from tuberculosis in children in this country constitutes from ten to eleven per cent of the deaths from all causes. He is not surprised that foreign statistics should show a much higher proportion of mortality from tuberculosis than our American statistics, for they take much less care of their milk supply. This is especially true in Vienna, where the death-rate from tuberculosis is very high and where the climate seems to have a special effect in creating a tendency to tuberculous infection. Dr. Southworth thinks that there is an evident connection between a high mortality in children from tuberculosis and lack of care in the collection of milk.

Infrequency of Intestinal Tuberculosis.—In closing the discussion Dr. Bovaird said that it is extremely difficult as a rule to decide whether there is primary infection of the intestines or of the respiratory tract. If there are breaking-down tuberculous lesions in the lungs there will always be minute ulcers of the intestines and enlargement of the mesentery glands, but it is evident that in such cases the patients have infected themselves and that their infection has not come from the food. If such cases are carefully excluded from the statistics it will be found that primary intestinal and mesenteric tuberculosis very rarely occurs.

West End Medical Society.—This Society meets next Saturday at residence of Dr. Fielding Taylor. Dr. Jelliffe will read a paper on "Some Phases of the Opium Habit."